

NOTIFICATION OF ADDENDUM

ADDENDUM NO. 2

DATED 3/01/2013

Control	1311-01-034, ETC.
Project	C 1311-1-34, ETC.
Highway	FM 1171
County	DENTON

Ladies/Gentlemen:

Attached please find an addendum on the above captioned project. Included in the attachment is an addendum notification which details the changes and the respective proposal pages which were added and/or changed.

Except for new bid insert pages, it is unnecessary to return any of the pages attached.

Bid insert pages must be returned with the bid proposal submitted to the Department, unless your firm is submitting a bid using a computer print out. The computer print out must be changed to reflect the new bid item information.

Contractors and material suppliers, etc. who have previously been furnished informational proposals are not being furnished a copy of the addendum. If you have a subcontractor on the above project, please advise them of this addendum. Acknowledgment of this addendum is not requested if your company has been issued a proposal stamped "This Proposal Issued for Informational Purposes."

You are required to acknowledge receipt of this addendum on the Addendum Acknowledgement form contained in your bid proposal by placing a mark in the box next to the respective addendum.

Failure to Acknowledge receipt of this addendum in your bid proposal will result in your bid not being read.

SUBJECT: PLANS AND PROPOSAL ADDENDUMS

PROJECT: C 1311-1-34

CONTROL: 1311-01-034

COUNTY: DENTON

LETTING: 03/06/2013

REFERENCE NO: 0227

PROPOSAL ADDENDUMS

X PROPOSAL COVER

X BID INSERTS (SH. NO.: 1-23 - 23-23)

X GENERAL NOTES (SH. NO.: J - HH)

X SPEC LIST (SH. NO.: 2-4 - 4-4)

_ SPECIAL PROVISIONS:

ADDED:

DELETED:

_ SPECIAL SPECIFICATIONS:

ADDED:

DELETED:

X OTHER: SEE CHANGES BELOW.

DESCRIPTION OF ABOVE CHANGES

(INCLUDING PLANS SHEET CHANGES)

PROPOSAL COVER:

WORKING DAYS CHANGED FROM 588 TO 693.

Bid Inserts:

Sheet 1-23: Item 132-2006 is deleted.

Item 132-2025 is added.

Item 132-2026 is added.

Item 132-2031 is added.

Sheet 3-23: Item 360-2001 quantity change.

Sheet 4-23: Item 420-2256 special provision 420-002 is added.

Item 416-2001 SP(416---001) Added.

Item 416-2002 SP(416---001) Added.

Item 416-2004 SP(416---001) Added.

Sheet 12-23: Item 531-2015 quantity change.

Item 540-2001 is deleted.

Item 540-2002 is added.

Sheet 15-23: Item 658-2240 is added.

Item 658-2316 is added.

Sheets 1-23 - 23-23 information may have shifted due to the changes above.

General Notes:

Sheet J: Note for item 305 and 354 is revised.

DESCRIPTION OF ABOVE CHANGES

(CONTINUED)

(INCLUDING PLANS SHEET CHANGES)

Sheet K: Note for item 320 is revised.

Note for items 3267 and 3268 is revised.

Sheet W: Note for item 512 is revised.

Sheets K - HH information may have shifted due to the changes above.

Spec List:

Sheet 2-4: Added item 658.

Sheets 2-4 - 4-4 information may have shifted due to the changes above.

Plan Set:

The following sheets are replaced:

17, 17A - 17P, 18, 18A-18E, 19, 25, 27, 28, 28A, 29, 34, 200,
322, 324, 328, 329, 332, 334, 336,

The following sheets are added:

833A - 833N

Control	1311-01-034, ETC.
Project	C 1311-1-34, ETC.
Highway	FM 1171
County	DENTON

PROPOSAL TO THE TEXAS TRANSPORTATION COMMISSION

2004 SPECIFICATIONS

WORK CONSISTING OF WIDEN TWO LANE RURAL TO SIX LANE DIVIDED DENTON COUNTY, TEXAS

The quantities in the proposal are approximate. The quantities of work and materials may be increased or decreased as considered necessary to complete the work as planned and contemplated.

This project is to be completed in 693 working days and will be accepted when fully completed and finished to the satisfaction of the Executive Director or designee.

Provide a proposal guaranty in the form of a Cashier's Check, Teller's Check (including an Official Check) or Bank Money Order on a State or National Bank or Savings and Loan Association, or State or Federally chartered Credit Union made payable to the Texas Transportation Commission in the following amount:

ONE HUNDRED THOUSAND (Dollars) (\$100,000)

A bid bond may be used as the required proposal guaranty. The bond form may be detached from the proposal for completion. The proposal may not be disassembled to remove the bond form. The bond must be in accordance with Item 2 of the specifications.

Any addenda issued amending this proposal and/or the plans that have been acknowledged by the bidder, become part of this proposal.

By signing the proposal the bidder certifies:

1. the only persons or parties interested in this proposal are those named and the bidder has not directly or indirectly participated in collusion, entered into an agreement or otherwise taken any action in restraint of free competitive bidding in connection with the above captioned project.
2. in the event of the award of a contract, the organization represented will secure bonds for the full amount of the contract.
3. the signatory represents and warrants that they are an authorized signatory for the organization for which the bid is submitted and they have full and complete authority to submit this bid on behalf of their firm.
4. that the certifications and representations contained in the proposal are true and accurate and the bidder intends the proposal to be taken as a genuine government record.

• **Signed: ****

(1) _____ (2) _____ (3) _____

Print Name:

(1) _____ (2) _____ (3) _____

Title:

(1) _____ (2) _____ (3) _____

Company:

(1) _____ (2) _____ (3) _____

- Signatures to comply with Item 2 of the specifications.

****Note:** Complete (1) for single venture, through (2) for joint venture and through (3) for triple venture.

*** When the working days field contains an asterisk (*) refer to the Special Provisions and General Notes.**

NOTICE TO CONTRACTORS

ANY CONTRACTORS INTENDING TO BID ON ANY WORK TO BE AWARDED BY THIS DEPARTMENT MUST SUBMIT A SATISFACTORY “AUDITED FINANCIAL STATEMENT” AND “EXPERIENCE QUESTIONNAIRE” AT LEAST TEN DAYS PRIOR TO THE LETTING DATE.

UNIT PRICES MUST BE SUBMITTED IN ACCORDANCE WITH ITEM 2 OF THE STANDARD SPECIFICATIONS OR SPECIAL PROVISION TO ITEM 2 FOR EACH ITEM LISTED IN THIS PROPOSAL.

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	100	2001	002	PREPARING ROW DOLLARS and CENTS	AC	5.000	1
	100	2002	002	PREPARING ROW DOLLARS and CENTS	STA	371.800	2
	104	2001		REMOVING CONC (PAV) DOLLARS and CENTS	SY	2,461.000	3
	104	2009		REMOVING CONC (RIPRAP) DOLLARS and CENTS	SY	147.000	4
	104	2017		REMOVING CONC (DRIVEWAYS) DOLLARS and CENTS	SY	676.000	5
	104	2021		REMOVING CONC (CURB) DOLLARS and CENTS	LF	444.000	6
	110	2001		EXCAVATION (ROADWAY) DOLLARS and CENTS	CY	441,601.000	7
	110	2002		EXCAVATION (CHANNEL) DOLLARS and CENTS	CY	208.000	8
	110	2003		EXCAVATION (SPECIAL) DOLLARS and CENTS	CY	26,180.000	9
	132	2025	001	EMBANKMENT (FINAL) (DENS CONT) (TY C1) DOLLARS and CENTS	CY	181,186.000	10

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	132	2026	001	EMBANKMENT (FINAL) (DENS CONT) (TY C2) DOLLARS and CENTS	CY	12,076.000	11
	132	2031	001	EMBANKMENT (FINAL)(DENS CONT)(TY C3) DOLLARS and CENTS	CY	7,640.000	12
	160	2004		FURNISHING AND PLACING TOPSOIL (6") DOLLARS and CENTS	SY	18,129.000	13
	161	2014	006	COMPOST MANUF TOPSOIL (BOS OR PB) (4") DOLLARS and CENTS	SY	274,879.000	14
	161	2023	006	EROSION CONTROL COMPOST (4") DOLLARS and CENTS	SY	306,385.000	15
	162	2006		BLOCK SODDING(OPT1) DOLLARS and CENTS	SY	260,187.000	16
	162	2007		BLOCK SODDING(OPT2) DOLLARS and CENTS	SY	38,892.000	17
	164	2041	002	DRILL SEEDING (TEMP) (WARM) DOLLARS and CENTS	SY	12,646.000	18
	164	2043	002	DRILL SEEDING (TEMP) (COOL) DOLLARS and CENTS	SY	12,646.000	19
	168	2001		VEGETATIVE WATERING DOLLARS and CENTS	MG	14,311.000	20

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	216	2001		PROOF ROLLING DOLLARS and CENTS	HR	7.000	21
	260	2002	003	LIME (HYDRATED LIME (SLURRY)) DOLLARS and CENTS	TON	9,590.100	22
	260	2009	003	LIME TRT (EXST MATL)(10") DOLLARS and CENTS	SY	400,001.200	23
	305	2004		SALV, HAUL & STKPL RCL APH PV (4 TO 6") DOLLARS and CENTS	SY	12,339.000	24
	305	2005		SALV, HAUL & STKPL RCL APH PV (6 TO 8") DOLLARS and CENTS	SY	110,684.000	25
	360	2001	003	CONC PVMT (CONT REINF-CRCP)(8") DOLLARS and CENTS	SY	351,814.100	26
	360	2005	003	CONC PVMT (CONT REINF-CRCP)(12") DOLLARS and CENTS	SY	66.000	27
	400	2005		CEM STABIL BKFL DOLLARS and CENTS	CY	32.630	28
	401	2001		FLOWABLE BACKFILL DOLLARS and CENTS	CY	776.000	29
	402	2001		TRENCH EXCAVATION PROTECTION DOLLARS and CENTS	LF	37,992.000	30
	403	2001		TEMPORARY SPL SHORING DOLLARS and CENTS	SF	9,999.000	31

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	416	2001	001	DRILL SHAFT (18 IN) DOLLARS and CENTS	LF	432.000	32
	416	2002	001	DRILL SHAFT (24 IN) DOLLARS and CENTS	LF	980.000	33
	416	2004	001	DRILL SHAFT (36 IN) DOLLARS and CENTS	LF	4,260.000	34
	416	2031	001	DRILL SHAFT (TRF SIG POLE) (30 IN) DOLLARS and CENTS	LF	11.000	35
	416	2032	001	DRILL SHAFT (TRF SIG POLE) (36 IN) DOLLARS and CENTS	LF	52.000	36
	416	2034	001	DRILL SHAFT (TRF SIG POLE) (48 IN) DOLLARS and CENTS	LF	132.000	37
	420	2041	002	CL C CONC (ABUT)(HPC) DOLLARS and CENTS	CY	449.900	38
	420	2042	002	CL C CONC (BENT)(HPC) DOLLARS and CENTS	CY	485.200	39
	420	2256	002	CL S CONC(APPR SLAB)(HPC) DOLLARS and CENTS	CY	1,098.600	40
	422	2003		REINF CONC SLAB (HPC)(CL S) DOLLARS and CENTS	SF	88,067.000	41
	423	2001		RETAINING WALL (MSE) DOLLARS and CENTS	SF	24,817.000	42

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	ITEM NO	DESC CODE	S.P. NO.				
	423	2006		RETAINING WALL (CONC BLOCK) DOLLARS and CENTS	SF	2,123.000	43
	425	2015	001	PRESTR CONC SLAB BEAM (5SB12) DOLLARS and CENTS	LF	1,837.000	44
	425	2068	001	PRESTR CONC GIRDER (TX54) DOLLARS and CENTS	LF	10,304.710	45
	428	2002	001	CONC SURF TREAT (CLASS II) DOLLARS and CENTS	SY	9,590.000	46
	432	2002		RIPRAP (CONC)(5 IN) DOLLARS and CENTS	CY	891.000	47
	432	2019		RIPRAP (STONE PROTECTION)(12 IN) DOLLARS and CENTS	CY	2,537.500	48
	432	2039		RIPRAP (MOW STRIP)(4 IN) DOLLARS and CENTS	CY	88.300	49
	432	2048		RIPRAP (CONC)(FLUME) DOLLARS and CENTS	CY	25.600	50
	432	2072		RIPRAP (CONC)(CL B)(RR8&RR9) DOLLARS and CENTS	CY	553.200	51
	442	2048	016	STRUCTURAL STEEL(MISC NON-BRIDGE) DOLLARS and CENTS	LB	1,585.000	52
	450	2064	001	RAIL (TY C221) DOLLARS and CENTS	LF	2,572.000	53

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	450	2076	001	RAIL (HANDRAIL)(TY E) DOLLARS and CENTS	LF	606.000	54
	450	2612	001	RAIL (TY C221) (HPC) DOLLARS and CENTS	LF	1,758.000	55
	454	2001		SEALED EXPANSION JOINT (4 IN)(SEJ-A) DOLLARS and CENTS	LF	738.000	56
	459	2009		GABION MATTRESSES (GALV)(6 IN) DOLLARS and CENTS	SY	465.000	57
	460	2007		CMP (GAL STL 36 IN) DOLLARS and CENTS	LF	100.000	58
	462	2001	015	CONC BOX CULV (3 FT X 2 FT) DOLLARS and CENTS	LF	1,573.000	59
	462	2002	015	CONC BOX CULV (3 FT X 3 FT) DOLLARS and CENTS	LF	254.000	60
	462	2004	015	CONC BOX CULV (4 FT X 3 FT) DOLLARS and CENTS	LF	291.000	61
	462	2005	015	CONC BOX CULV (4 FT X 4 FT) DOLLARS and CENTS	LF	146.000	62
	462	2007	015	CONC BOX CULV (5 FT X 3 FT) DOLLARS and CENTS	LF	224.000	63
	462	2009	015	CONC BOX CULV (5 FT X 5 FT) DOLLARS and CENTS	LF	141.000	64

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	462	2011	015	CONC BOX CULV (6 FT X 4 FT) DOLLARS and CENTS	LF	394.000	65
	462	2013	015	CONC BOX CULV (6 FT X 6 FT) DOLLARS and CENTS	LF	130.000	66
	462	2014	015	CONC BOX CULV (7 FT X 3 FT) DOLLARS and CENTS	LF	931.000	67
	462	2016	015	CONC BOX CULV (7 FT X 5 FT) DOLLARS and CENTS	LF	254.000	68
	462	2019	015	CONC BOX CULV (8 FT X 4 FT) DOLLARS and CENTS	LF	872.000	69
	462	2024	015	CONC BOX CULV (9 FT X 5 FT) DOLLARS and CENTS	LF	510.500	70
	464	2003	006	RC PIPE (CL III)(18 IN) DOLLARS and CENTS	LF	1,144.000	71
	464	2005	006	RC PIPE (CL III)(24 IN) DOLLARS and CENTS	LF	32,458.000	72
	464	2007	006	RC PIPE (CL III)(30 IN) DOLLARS and CENTS	LF	5,462.000	73
	464	2009	006	RC PIPE (CL III)(36 IN) DOLLARS and CENTS	LF	5,728.000	74
	464	2022	006	RC PIPE (CL IV)(24 IN) DOLLARS and CENTS	LF	45.000	75

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	464	2030	006	RC PIPE (CL IV)(60 IN) DOLLARS and CENTS	LF	223.500	76
	465	2001	001	INLET (COMPL)(TY C) DOLLARS and CENTS	EA	235.000	77
	465	2003	001	INLET (COMPL)(TY H) DOLLARS and CENTS	EA	10.000	78
	465	2005	001	MANH (COMPL)(TY M) DOLLARS and CENTS	EA	19.000	79
	465	2008	001	INLET EXT (TY E) DOLLARS and CENTS	EA	405.000	80
	465	2389	001	INLET (COMPL)(DROP)(TY III) DOLLARS and CENTS	EA	2.000	81
	466	2007		WINGWALL (SW-0)(HW=5 FT) DOLLARS and CENTS	EA	1.000	82
	466	2020		WINGWALL (FW-0)(HW=4 FT) DOLLARS and CENTS	EA	1.000	83
	466	2021		WINGWALL (FW-0)(HW=5 FT) DOLLARS and CENTS	EA	3.000	84
	466	2022		WINGWALL (FW-0)(HW=6 FT) DOLLARS and CENTS	EA	1.000	85
	466	2023		WINGWALL (FW-0)(HW=7 FT) DOLLARS and CENTS	EA	2.000	86

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	466	2025		WINGWALL (FW-0)(HW=9 FT) DOLLARS and CENTS	EA	1.000	87
	466	2033		WINGWALL (FW-S)(HW=3 FT) DOLLARS and CENTS	EA	2.000	88
	466	2034		WINGWALL (FW-S)(HW=4 FT) DOLLARS and CENTS	EA	1.000	89
	466	2035		WINGWALL (FW-S)(HW=5 FT) DOLLARS and CENTS	EA	1.000	90
	466	2037		WINGWALL (FW-S)(HW=7 FT) DOLLARS and CENTS	EA	5.000	91
	466	2038		WINGWALL (FW-S)(HW=8 FT) DOLLARS and CENTS	EA	1.000	92
	466	2039		WINGWALL (FW-S)(HW=9 FT) DOLLARS and CENTS	EA	1.000	93
	466	2040		WINGWALL (FW-S)(HW=10 FT) DOLLARS and CENTS	EA	2.000	94
	466	2054		WINGWALL (PW)(HW=10 FT) DOLLARS and CENTS	EA	1.000	95
	466	2103		HEADWALL (CH-FW-30)(DIA= 60 IN) DOLLARS and CENTS	EA	1.000	96
	466	2118		HEADWALL (CH-FW-45)(DIA= 60 IN) DOLLARS and CENTS	EA	1.000	97

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	466	2328		WINGWALL (PW-1)(HW=5 FT) DOLLARS and CENTS	EA	1.000	98
	466	2330		WINGWALL (PW-1)(HW=7 FT) DOLLARS and CENTS	EA	1.000	99
	466	2331		WINGWALL (PW-1)(HW=8 FT) DOLLARS and CENTS	EA	3.000	100
	466	2332		WINGWALL (PW-1)(HW=9 FT) DOLLARS and CENTS	EA	1.000	101
	466	2334		WINGWALL (PW-1)(HW=11 FT) DOLLARS and CENTS	EA	1.000	102
	467	2024		SET (TY I)(S= 3 FT)(HW= 4 FT)(3:1)(C) DOLLARS and CENTS	EA	4.000	103
	467	2211		SET (TY II)(24 IN)(RCP)(3:1)(C) DOLLARS and CENTS	EA	6.000	104
	467	2213		SET (TY II)(30 IN)(RCP)(3:1)(C) DOLLARS and CENTS	EA	2.000	105
	467	2215		SET (TY II)(36 IN)(RCP)(3:1)(C) DOLLARS and CENTS	EA	2.000	106
	467	2236		SET (TY II)(24 IN)(RCP)(6:1)(C) DOLLARS and CENTS	EA	2.000	107
	467	2286		SET (TY II)(18 IN)(RCP)(6:1)(P) DOLLARS and CENTS	EA	6.000	108

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	467	2288		SET (TY II)(24 IN)(RCP)(6:1)(P) DOLLARS and CENTS	EA	4.000	109
	496	2002		REMOV STR (INLET) DOLLARS and CENTS	EA	3.000	110
	496	2004		REMOV STR (SET) DOLLARS and CENTS	EA	18.000	111
	496	2006		REMOV STR (HEADWALL) DOLLARS and CENTS	EA	53.000	112
	496	2007		REMOV STR (PIPE) DOLLARS and CENTS	LF	4,069.000	113
	496	2008		REMOV STR (BOX CULVERT) DOLLARS and CENTS	LF	498.000	114
	496	2010		REMOV STR (BRIDGE 100-499 FT LENGTH) DOLLARS and CENTS	EA	2.000	115
	496	2025		REMOV STR (APPROACH SLAB) DOLLARS and CENTS	EA	4.000	116
	500	2001	011	MOBILIZATION DOLLARS and CENTS	LS	1.000	117
	502	2001	033	BARRICADES, SIGNS AND TRAFFIC HAN- DLING DOLLARS and CENTS	MO	33.000	118

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	508	2002		CONSTRUCTING DETOURS DOLLARS and CENTS	SY	20,119.000	119
	512	2048	002	PORT CTB (FUR & INST)(F-SHAPE)(TY 1) DOLLARS and CENTS	LF	8,760.000	120
	512	2050	002	PORT CTB (MOVE)(F-SHAPE)(TY 1) DOLLARS and CENTS	LF	7,800.000	121
	512	2052	002	PORT CTB (REMOVE)(F-SHAPE)(TY 1) DOLLARS and CENTS	LF	8,760.000	122
	529	2006		CONC CURB (MONO) (TY II) DOLLARS and CENTS	LF	141,729.000	123
	530	2010	006	DRIVEWAYS (CONC) DOLLARS and CENTS	SY	4,402.000	124
	531	2005		CURB RAMPS (TY 1) DOLLARS and CENTS	EA	1.000	125
	531	2010		CURB RAMPS (TY 7) DOLLARS and CENTS	EA	9.000	126
	531	2015		CONC SIDEWALKS (4") DOLLARS and CENTS	SY	3,306.000	127
	531	2024		CONC SIDEWALK (5") DOLLARS and CENTS	SY	1,781.500	128
	536	2002		CONC MEDIAN DOLLARS and CENTS	SY	8,408.000	129

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	540	2002	031	MTL W-BEAM GD FEN (STEEL POST) DOLLARS and CENTS	LF	1,675.000	130
	540	2005	031	TERMINAL ANCHOR SECTION DOLLARS and CENTS	EA	6.000	131
	540	2011	031	MTL BEAM GD FEN TRANS (THRIE-BEAM) DOLLARS and CENTS	EA	8.000	132
	542	2001		REMOVING METAL BEAM GUARD FENCE DOLLARS and CENTS	LF	1,221.000	133
	544	2001		GUARDRAIL END TREATMENT (INSTALL) DOLLARS and CENTS	EA	14.000	134
	544	2003		GUARDRAIL END TREATMENT (REMOVE) DOLLARS and CENTS	EA	8.000	135
	545	2046		CRASH CUSH ATTEN (INSTAL)(ABSORB 350) DOLLARS and CENTS	EA	36.000	136
	545	2047		CRASH CUSH ATTEN(MOV&RESET)(ABSORB 350) DOLLARS and CENTS	EA	24.000	137
	545	2048		CRASH CUSH ATTEN (REMOVE)(ABSORB 350) DOLLARS and CENTS	EA	36.000	138
	560	2004	001	MAILBOX INSTALL-S (WC-POST) TY 3 FND DOLLARS and CENTS	EA	19.000	139

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	618	2022		CONDT (PVC) (SCHD 40) (3") DOLLARS and CENTS	LF	17,372.000	140
	618	2024		CONDT (PVC) (SCHD 40) (4") DOLLARS and CENTS	LF	538.000	141
	618	2026		CONDT (PVC) (SCHD 40) (6") DOLLARS and CENTS	LF	17,207.000	142
	618	2034		CONDT (PVC) (SCHD 80) (2") DOLLARS and CENTS	LF	36.000	143
	618	2041		CONDT (PVC) (SCHD 80) (4") (BORE) DOLLARS and CENTS	LF	1,138.000	144
	620	2009	001	ELEC CONDR (NO. 6) BARE DOLLARS and CENTS	LF	700.000	145
	620	2010	001	ELEC CONDR (NO. 6) INSULATED DOLLARS and CENTS	LF	104.000	146
	620	2011	001	ELEC CONDR (NO. 8) BARE DOLLARS and CENTS	LF	913.000	147
	620	2012	001	ELEC CONDR (NO. 8) INSULATED DOLLARS and CENTS	LF	2,842.000	148
	620	2016	001	ELEC CONDR (NO.12) INSULATED DOLLARS and CENTS	LF	1,430.000	149
	624	2014	014	GROUND BOX TY D (162922) W/APRON DOLLARS and CENTS	EA	11.000	150

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	628	2158	003	REMOVE ELECTRICAL SERVICES DOLLARS and CENTS	EA	3.000	151
	628	2164	003	ELC SRV TY D 120/240 070 (NS)AL(E)PS(U) DOLLARS and CENTS	EA	3.000	152
	644	2001		IN SM RD SN SUP&AM TY10BWG(1)SA(P) DOLLARS and CENTS	EA	42.000	153
	644	2002		IN SM RD SN SUP&AM TY10BWG(1)SA(P-BM) DOLLARS and CENTS	EA	16.000	154
	644	2004		IN SM RD SN SUP&AM TY10BWG(1)SA(T) DOLLARS and CENTS	EA	15.000	155
	644	2006		IN SM RD SN SUP&AM TY10BWG(1)SA(U) DOLLARS and CENTS	EA	1.000	156
	644	2027		IN SM RD SN SUP&AM TYS80(1)SA(U) DOLLARS and CENTS	EA	1.000	157
	644	2028		IN SM RD SN SUP&AM TYS80(1)SA(U-1EXT) DOLLARS and CENTS	EA	4.000	158
	644	2060		REMOVE SM RD SN SUP & AM DOLLARS and CENTS	EA	148.000	159
	658	2240		INSTL DEL ASSM (D-SW)SZ 1(FLX)GF2 DOLLARS and CENTS	EA	35.000	160
	658	2316		INSTL OM ASSM (OM-2Z)(FLX)GND DOLLARS and CENTS	EA	51.000	161

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	662	2001		WK ZN PAV MRK NON-REMOV (W) 4" (BRK) DOLLARS and CENTS	LF	2,308.000	162
	662	2004		WK ZN PAV MRK NON-REMOV (W) 4" (SLD) DOLLARS and CENTS	LF	521.000	163
	662	2064		WK ZN PAV MRK REMOV (W) 4" (BRK) DOLLARS and CENTS	LF	46,763.000	164
	662	2067		WK ZN PAV MRK REMOV (W) 4" (SLD) DOLLARS and CENTS	LF	119,110.000	165
	662	2075		WK ZN PAV MRK REMOV (W) 8" (SLD) DOLLARS and CENTS	LF	1,193.000	166
	662	2097		WK ZN PAV MRK REMOV (Y) 4" (BRK) DOLLARS and CENTS	LF	37,862.000	167
	662	2099		WK ZN PAV MRK REMOV (Y) 4" (SLD) DOLLARS and CENTS	LF	126,374.000	168
	666	2003		REFL PAV MRK TY I (W) 4" (BRK)(100MIL) DOLLARS and CENTS	LF	142,108.000	169
	666	2012		REFL PAV MRK TY I (W) 4" (SLD)(100MIL) DOLLARS and CENTS	LF	77,163.000	170
	666	2036		REFL PAV MRK TY I (W) 8" (SLD)(100MIL) DOLLARS and CENTS	LF	21,162.000	171
	666	2042		REFL PAV MRK TY I (W) 12"(SLD)(100MIL) DOLLARS and CENTS	LF	264.000	172

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	666	2048		REFL PAV MRK TY I (W) 24"(SLD)(100MIL) DOLLARS and CENTS	LF	2,178.000	173
	666	2054		REFL PAV MRK TY I (W) (ARROW) (100MIL) DOLLARS and CENTS	EA	112.000	174
	666	2069		REFL PAV MRK TY I(W)(DBL ARROW)(100MIL) DOLLARS and CENTS	EA	5.000	175
	666	2084		REFL PAV MRK TY I(W)(RR XING) (100MIL) DOLLARS and CENTS	EA	6.000	176
	666	2096		REFL PAV MRK TY I (W) (WORD) (100MIL) DOLLARS and CENTS	EA	112.000	177
	666	2111		REFL PAV MRK TY I (Y) 4" (SLD)(100MIL) DOLLARS and CENTS	LF	81,484.000	178
	666	2132		REFL PAV MRK TY I (Y) 24"(SLD)(100MIL) DOLLARS and CENTS	LF	107.000	179
	666	2142		REF PAV MRK TY II (W) 4" (BRK) DOLLARS and CENTS	LF	142,108.000	180
	666	2145		REF PAV MRK TY II (W) 4" (SLD) DOLLARS and CENTS	LF	77,163.000	181
	666	2153		REF PAV MRK TY II (W) 8" (SLD) DOLLARS and CENTS	LF	21,162.000	182

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	666	2155		REF PAV MRK TY II (W) 12" (SLD) DOLLARS and CENTS	LF	264.000	183
	666	2157		REF PAV MRK TY II (W) 24" (SLD) DOLLARS and CENTS	LF	2,178.000	184
	666	2160		REF PAV MRK TY II (W) (ARROW) DOLLARS and CENTS	EA	112.000	185
	666	2165		REF PAV MRK TY II (W) (DBL ARROW) DOLLARS and CENTS	EA	5.000	186
	666	2169		REF PAV MRK TY II (W) (RR XING) DOLLARS and CENTS	EA	6.000	187
	666	2173		REF PAV MRK TY II (W) (WORD) DOLLARS and CENTS	EA	112.000	188
	666	2178		REF PAV MRK TY II (Y) 4" (SLD) DOLLARS and CENTS	LF	81,484.000	189
	666	2185		REF PAV MRK TY II (Y) 24" (SLD) DOLLARS and CENTS	LF	107.000	190
	672	2012	034	REFL PAV MRKR TY I-C DOLLARS and CENTS	EA	1,776.000	191
	672	2015	034	REFL PAV MRKR TY II-A-A DOLLARS and CENTS	EA	1,058.000	192
	677	2001		ELIM EXT PAV MRK & MRKS (4") DOLLARS and CENTS	LF	114,472.000	193

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	678	2001		PAV SURF PREP FOR MRK (4") DOLLARS and CENTS	LF	300,755.000	194
	678	2003		PAV SURF PREP FOR MRK (8") DOLLARS and CENTS	LF	21,162.000	195
	678	2004		PAV SURF PREP FOR MRK (12") DOLLARS and CENTS	LF	264.000	196
	678	2006		PAV SURF PREP FOR MRK (24") DOLLARS and CENTS	LF	2,178.000	197
	678	2007		PAV SURF PREP FOR MRK (ARROW) DOLLARS and CENTS	EA	112.000	198
	678	2008		PAV SURF PREP FOR MRK (DBL ARROW) DOLLARS and CENTS	EA	5.000	199
	678	2014		PAV SURF PREP FOR MRK (RR XING) DOLLARS and CENTS	EA	6.000	200
	678	2018		PAV SURF PREP FOR MRK (WORD) DOLLARS and CENTS	EA	112.000	201
	680	2003		INSTALL HWY TRF SIG (SYSTEM) DOLLARS and CENTS	EA	3.000	202
	681	2001	002	TEMP TRAF SIGNALS DOLLARS and CENTS	EA	3.000	203
	682	2001	003	BACK PLATE (12 IN) (3 SEC) DOLLARS and CENTS	EA	28.000	204

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	682	2003	003	BACK PLATE (12 IN) (5 SEC) DOLLARS and CENTS	EA	12.000	205
	682	2022	003	VEH SIG SEC (12 IN) LED (GRN ARW) DOLLARS and CENTS	EA	12.000	206
	682	2023	003	VEH SIG SEC (12 IN) LED (GRN) DOLLARS and CENTS	EA	40.000	207
	682	2024	003	VEH SIG SEC (12 IN) LED (YEL ARW) DOLLARS and CENTS	EA	12.000	208
	682	2025	003	VEH SIG SEC (12 IN) LED (YEL) DOLLARS and CENTS	EA	40.000	209
	682	2027	003	VEH SIG SEC (12 IN) LED (RED) DOLLARS and CENTS	EA	40.000	210
	682	2066	003	PED SIG SEC (12 IN) LED (COUNTDOWN) DOLLARS and CENTS	EA	4.000	211
	684	2031		TRF SIG CBL (TY A) (14 AWG) (5 CONDR) DOLLARS and CENTS	LF	1,361.000	212
	684	2033		TRF SIG CBL (TY A) (14 AWG) (7 CONDR) DOLLARS and CENTS	LF	594.000	213
	684	2036		TRF SIG CBL (TY A) (14 AWG) (10 CONDR) DOLLARS and CENTS	LF	120.000	214
	684	2046		TRF SIG CBL (TY A) (14 AWG) (20 CONDR) DOLLARS and CENTS	LF	1,853.000	215

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	686	2029		INS TRF SIG PL AM(S) 1 ARM (28') LUM DOLLARS and CENTS	EA	1.000	216
	686	2049		INS TRF SIG PL AM(S) 1 ARM (48') LUM DOLLARS and CENTS	EA	4.000	217
	686	2053		INS TRF SIG PL AM(S) 1 ARM (50') LUM DOLLARS and CENTS	EA	1.000	218
	686	2057		INS TRF SIG PL AM(S) 1 ARM (55') LUM DOLLARS and CENTS	EA	1.000	219
	686	2065		INS TRF SIG PL AM(S) 1 ARM (65') LUM DOLLARS and CENTS	EA	4.000	220
	687	2001	004	PED POLE ASSEMBLY DOLLARS and CENTS	EA	2.000	221
	730	2001		STRIP MOWING DOLLARS and CENTS	AC	511.000	222
	1012	2003		TRANSPLANT PLANT MATERIAL DOLLARS and CENTS	EA	100.000	223
	1122	2001	001	ROCK FILTER DAMS (INSTALL) (TY 1) DOLLARS and CENTS	LF	1,700.000	224
	1122	2002	001	ROCK FILTER DAMS (INSTALL) (TY 2) DOLLARS and CENTS	LF	502.000	225
	1122	2003	001	ROCK FILTER DAMS (INSTALL) (TY 3) DOLLARS and CENTS	LF	40.000	226

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	1122	2009	001	ROCK FILTER DAMS (REMOVE) DOLLARS and CENTS	LF	1,752.000	227
	1122	2016	001	CONSTRUCTION EXITS (INSTALL) (TY 1) DOLLARS and CENTS	SY	6,086.000	228
	1122	2019	001	CONSTRUCTION EXITS (REMOVE) DOLLARS and CENTS	SY	6,086.000	229
	1122	2024	001	BACKHOE WORK (EROSION & SEDM CONT) DOLLARS and CENTS	HR	119.500	230
	1122	2037	001	TEMPORARY SEDIMENT CONTROL FENCE INSTLL DOLLARS and CENTS	LF	42,924.000	231
	1122	2048	001	BIOGRD EROSN CONT LOGS (12" DIA)INSTALL DOLLARS and CENTS	LF	9,695.000	232
	1122	2049	001	BIOGRD EROSN CONT LOGS (18" DIA)INSTALL DOLLARS and CENTS	LF	14,006.000	233
	1122	2057	001	TEMPORARY SEDIMENT CONTROL FENCE REMOVE DOLLARS and CENTS	LF	42,924.000	234
	3267	2014		D-GR HMA(SQ) TY-B PG70-22 DOLLARS and CENTS	TON	1,621.000	235

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	3267	2050		D-GR HMA(SQ) TY-C PG70-22 DOLLARS and CENTS	TON	3,719.300	236
	3268	2008		D-GR HMA TY-B PG64-22 DOLLARS and CENTS	TON	94,112.800	237
	4050	2001		CATTLE GUARD DOLLARS and CENTS	EA	1.000	238
	5848	2001		STORMWATER TREATMENT UNIT TY01 DOLLARS and CENTS	EA	6.000	239
	6007	2001		REMOVING TRAFFIC SIGNALS DOLLARS and CENTS	EA	3.000	240
	6167	2002		INSTALL VIVDS CAMERA ASSEMBLY DOLLARS and CENTS	EA	19.000	241
	8835	2001		ACCESSIBLE PEDESTRIAN SIGNAL UNITS DOLLARS and CENTS	EA	4.000	242

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I. UNION PACIFIC RAILROAD COMPANY

Protection of Fiber Optic Cable Systems

Fiber optic cable systems may be buried on the railroad's property. Protection of the fiber optic cable systems is of extreme importance since any break could disrupt service to users resulting in business interruption and loss of revenue and profits. The State and/or its Contractor shall telephone the railroad during normal business hours (7:00 A.M. to 9:00 P.M., Central time, Monday through Friday, except holidays) at 1-800-336-9193 (also a 24-hour, seven-day number for emergency calls) to determine if fiber optic cable is buried on the railroad's premises to be used by the State. If it is, the State and/or its Contractor will telephone the telecommunications company(ies) involved, arrange for a cable locator and make arrangements for relocation or other protection of the fiber optic cable prior to beginning any work on the railroad's premises.

SW3P RESPONSIBILITIES

TxDOT Area of Responsibility

Responsible for the area defined by the limits of the subject project, except for those areas utilized and operated by the contractor. These areas include, though are not limited to, areas used for field offices, equipment and/or material storage, and concrete or asphalt plants.

TxDOT Operational Responsibility

Responsible for seeking coverage under the TPDES Construction General Permit (CGP) and operating the project within the requirements of the CGP for discharging storm water from the subject project and to notify MS4 permit holders of the intent to discharge storm water.

File a Notice of Termination with TCEQ upon completion of the project when the exposed areas have been stabilized with a vegetative cover of at least 70%.

Contractor Area of Responsibility

Responsible for all areas under their direct operational control which includes, though not limited to, areas used for field offices, equipment and/or material storage, and concrete or asphalt plants. These areas may be located on or off the subject project's R.O.W.

Contractor Operational Responsibility

Responsible for seeking coverage under the TPDES Construction General Permit (CGP) and adhering to all requirements of the permit for discharging storm water from the areas under their operational control. Perform regular inspections, prepare a written report of deficiencies, and repair deficiencies within the time frame set forth by the permit. File a Notice of Termination with TCEQ upon completion of the project when the exposed areas have been stabilized with a vegetative cover of at least 70%.

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Responsible under contractual obligations to TxDOT to install, clean, repair, replace or remove sediment and erosion control devices as indicated on TxDOT's Inspection Reports, or as required by daily construction practices, within the time frame set forth by the permit.

SPECIFICATION DATA

Table 1: Soil Constants Requirements				
Item	Description	Plasticity Index		Note
		Max	Min	
132	Embk(DC) (Type C1)	40	8	1
132	Embk(DC) (Type C2)	25	10	2
132	Embk(DC) (Type C3)	N/A	N/A	3

Note 1: Material excavated from the project must meet the PI requirements when used in the top 10 feet of embankment that supports the pavement structure or other locations shown in the plans. Do not use shale and obtain approval to incorporate shaley clay produced by the construction project.

Note 2: Use as a non-select embankment backfill as defined under Item 423.2.C.1. Use as an embankment to backfill behind abutments to the extent of the approach slab or to backfill areas enclosed by an abutment and / or retaining walls (retained zone for walls 01 – 04 only) or other locations as shown in the plans.

Note 3: Use as select embankment backfill as defined under Item 423.2.C.2, Type D for reinforcement zones for retaining walls 01 – 06, and retained zones for walls 05 & 06.

Table 2: Basis of Estimate for Permanent Construction				
Item	Description	Thickness	Rate	Quantity

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162	Block Sod (Bermuda)					274879	SY
162	Block Sod (Buffalo)					24200	SY
166 *	Fertilizer (12-6-6)		N/A	500	Lb/Ac	15.4	Ton
168	Vegetative Watering		N/A	140	Mg/Ac	8651	Mg
204	Sprinkling (dust cont)		N/A		Mg/Sta	7951	Mg
260	Hydrated Lime (slurry)		10 IN		6% by wt.	9600	Ton
3268	D-GR HMA(METH) TY-B PG64-22		4 IN	110	Lb(SY*In)	81932	Ton
3268	D-GR HMA(METH) TY-B PG64-22		8 IN	110	Lb(SY*In)	11728	Ton
3267	D-GR HMA(METH) TY-C PG70-22		4 IN	110	Lb(SY*In)	3720	Ton
3267	D-GR HMA(METH) TY-B PG70-22		8 IN	110	Lb(SY*In)	1621	Ton
* For contractor's information only							

Table 3: Basis of Estimate for Temporary Erosion Control Items

Item	Description	Rate		Quantity	
164	Drill Seeding (Temp) (Warm)			12078	SY
166*	Fertilizer (12-6-6)	500	Lb/Ac	0.62	Ton
168	Vegetative Watering	120	Mg/Ac	299	Mg
164	Drill Seeding (Temp) (Cool)			12078	SY
166*	Fertilizer (12-6-6)	500	Lb/Ac	0.62	Ton
168	Vegetative Watering	15	Mg/Ac	38	Mg
*For contractor's information only					

Table 4: Basis of Estimate for Finish Colors (Items 427 & 446) ¹

Element	Color	Specification Number ²
CTB	Coachella Sand	20227
Columns	Coachella Sand	20227
Bent caps	Coachella Sand	20227
Striated retaining wall surfaces	Coachella Sand	20227
Retaining wall coping and other components except striated surfaces.	Coachella Sand	20227

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Abutments (all parts)	Coachella Sand	20227
Prestressed concrete girders and structural steel	Coachella Sand	20227
Bottom of slab overhang & slab edge	Coachella Sand	20227
Concrete rail parts except outside lower 18"	Coachella Sand	20227
Lower outside 18" of concrete rails	Coachella Sand	20227

1. Unless otherwise noted, it is the intent of these plans that all exposed surfaces (concrete or steel) of bridges, retaining walls, concrete traffic railing and concrete traffic barrier be given a tinted coating as shown or as directed. Such coating shall meet the applicable provisions of Item 427 or Item 446.
2. Federal Standard 595b colors.
3. A 3' x 3' concrete color stain sample shall be submitted to the engineer for approval prior to painting.

GENERAL

On this project, work will need to be ceased as determined by the engineer to accommodate Texas Motor Speedway activities. The project will be left in a condition that will have the least impact on the traveling public as practicable as determined by the engineer. No additional time or compensation will be allowed for these actions.

Access will be provided to all business and residences at all times. Where turning radii are limited during phased construction at intersections, provide all weather surfaces such as RAP or base in turning movements to accommodate and to protect the traffic from edge drop-offs. Materials, labor and maintenance for these temporary accesses will not be paid for directly but will be considered subsidiary to the various bid items.

The construction, operation and maintenance of the proposed project will be consistent with the state implementation plan as prepared by the Texas Commission on Environmental Quality.

The disturbed area for this project, as shown on the plans is 118.6 acres. However, the Total Disturbed Area (TDA) will establish the required authorization for storm water discharges. The TDA of this project will be determined by the sum of the disturbed area in all project locations in the contract, and all disturbed area on all Project-Specific Locations (PSL) located in the project limits and/or within 1 mile of the project limits. The department will obtain an authorization to discharge storm water from the Texas Commission on Environmental Quality (TCEQ) for the construction site as shown on the plans, according to the TDA of the project. The contractor will obtain any required authorization from the TCEQ for the discharge of storm water from any PSL for construction support activities on or off of the project row according to the TDA of the project. When the TDA for the project exceeds 1 acre, provide a copy of the appropriate application of permit (NOI, or Construction Site Notice) to the engineer, for any PSL located in the project limits or within 1 mile of the project limits. Follow the directives and

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adhere to all requirements set forth in the TCEQ, Texas Pollution Discharge Elimination System, Construction General Permit (TPDES, CGP).

This project required formal consultation and permits with environmental resources agencies. There is a high probability that an environmentally sensitive area could be encountered on the contractor designated Project-Specific Locations (PSL) for this project (haul roads, equipment staging areas, borrow pits, disposal sites, field offices, storage areas, parking areas, etc.). Item 7.19.F, "Project-Specific Locations", will provide a listing of regulatory agencies that may need to be contacted regarding this project.

Prior to contract letting, bidders may request electronic earthwork information by email.

Email: Chris.behnke@txdot.gov
Nancy.Cline@txdot.gov
Linda.Tischler@txdot.gov

Earthwork files will be provided by email or by using TxDOT's Dropbox FTP Service.

FTP Username: dal-denton-ro

FTP password: aRRyTE9z

Access: Read-Only

To Access do the following:

Go to <ftp://ftp.dot.state.tx.us>

Click File>Open FTP site in Windows Explorer

Click File>Login As

Enter the information above and click "Log On"

All files in the FTP site are subject to the License Agreement shown on the FTP site screen:

Bidders may also obtain a free computer diskette that contains earthwork information from the engineer's office. Paper copies of cross-sections may be produced by using the provided free diskette at the bidders' expense and at copying companies. This data is for non-construction purposes only and it is the responsibility of the prospective bidder to validate the enclosed data with appropriate plans, specifications and estimate for the project(s).

Install traffic marking signs prior to sealcoat application and remove within three days after placement of traffic markings.

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Leave all right of way areas undisturbed until actual construction is to be performed in said areas.

Use established industry and utility safety practices to erect poles, luminaries, signs or structures near any overhead or underground utility. Consult with the appropriate utility company prior to beginning such work.

Locate all utilities, both underground and above ground, in the project area prior to beginning work so that conflicts are avoided.

Underground utilities owned by the Texas Department of Transportation may be present within the Right-Of-Way on this project. For signal, illumination, surveillance, and communications & control maintained by TxDOT, call TxDOT Traffic Signal Office (214-320-6682) for locates a minimum of 48 hours in advance of excavation. For irrigation systems, call TxDOT Maintenance Landscape Office (214-320-6205) for locates a minimum of 48 hours in advance of excavation. If city or town owned irrigation facilities are present, call the appropriate department of the local city or town a minimum of 48 hours in advance of excavation. The Contractor is liable for all damages incurred to the above mentioned utilities when working without having the utilities located prior to excavation.

Submit all shop drawings, working drawings, or other documents which require review sufficiently in advance of scheduled construction to allow no less than thirty (30) calendar days for review and response.

For the project to be deemed complete, permanently stabilize all unpaved disturbed areas of the project with a vegetative cover at a minimum of 70% density for the control of erosion.

Repair or replace any structures and utilities that might have been damaged by negligence or a failure to have utility locates performed.

Perform all electrical work in accordance with the National Electrical Code and Texas Department of Transportation Specifications.

Consult with appropriate electric company representatives according to their respective area to coordinate electrical services installations.

Submit pre-letting questions, by email only, to the attention of Area Engineer or Assistant Area Engineer.

Email: Chris.behnke@txdot.gov
Nancy.Cline@txdot.gov
Linda.Tischler@txdot.gov

Answers will be provided by email.

An electronic file containing pre-letting questions and TxDOT answers will be provided upon email request.

Material On Hand (MOH) will not be used in calculating partial payments for Mobilization.

Provide the Engineer with a copy of all DBE subcontractor agreements prior to commencing work.

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The following standard detail sheets have been modified:

Type III Inlet, LMA(1)-12(DAL), LMA(2)-12(DAL), LMA(4)-12(DAL), LMA(5)-12(DAL), MA-D-12(DAL), SMA-80(1)-12(DAL), SMA-80(2)-12(DAL)

Item 6:

This project has structures with surface coatings which may contain lead and/or other hazardous constituents. Contractor is responsible for the health and safety of his employees and compliance with all OSHA standards and regulations.

This project has structures with surface coatings which contain asbestos. Contractor is responsible for the health and safety of his employees and compliance with all OSHA standards and regulations.

Item 8:

This Project will be a Five-Day Workweek in accordance with Article 8.3.A.1.

To expedite intersection construction, the contractor may utilize hot mix asphalt concrete (HMAC) at a depth of one-half the plan thickness for lime treated subgrade in-lieu of the lime treated subgrade. The additional excavation and the HMAC will be calculated for payment using the appropriate bid items. Overruns due to excessive excavation for the added HMAC will not be paid for directly but is subsidiary to the HMAC. HMAC will be considered "small placements".

Phase 1

Intersection		Free Days	Intersection (days)	Impact	Daily Intersection Rental Charge (\$)
US 377	Left	30			3000
	Right	30			3000

Phase 2

Intersection		Free Days	Intersection (days)	Impact	Daily Intersection Rental Charge (\$)
Cleveland-Gibbs Rd.	Right	12			3000
	Left	12			3000
Old Cross Timbers Rd.	Entire	20			1500
Pocahontas	Entire	20			1500
Bordeaux Way	Left	10			1500
	Right	10			1500
	Center	2			1500
Winding Oaks Way	Left	10			1500
	Right	10			1500
Post Oak Rd.	Left	12			1500
	Right	12			1500
Chimney Rock Dr.	Left	12			1500

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	Center Right	10 12	1500 1500
High Rd.	Left Right	15 15	3000 3000

Phase 3

Intersection		Free Days	Intersection (days)	Impact	Daily Intersection Rental Charge (\$)
Cleveland-Gibbs Rd.	Right	12			3000
	Left	12			3000
Tour 18 Dr.	Left	12			3000
	Right	12			3000
Glen Oaks Dr.	Left	10			1500
	Right	10			1500
Red Rock Ln.	Left	12			3000
	Right	12			3000

Incentive

Type	Ref	Duration Allowed	Max Incentive Days	Daily Amount
Early Substantial Completion of Work	SP 008-069 Item 8.11.A.2	Contract Duration	180 Calendar Days earlier from October 31, 2016	SP 000-2332

Item 100:

Remove the existing roadway small signs, delineators and object markers as shown on the plans, or as directed, during construction within the right of way. Small sign, delineator and object marker removals are subsidiary to this Item.

The limits of preparing right of way will be measured from Sta. 204+13.87 to Sta. 575+35.20 along the centerline of construction.

Item 104:

In those areas where the pavement is not to be overlaid, provide a smooth surface after the curb removal. Planing or grinding is considered an acceptable method at these locations. Measurement and payment is in accordance with this item.

Sawing of concrete is not paid for directly, but is considered subsidiary to this item.

Item 110:

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Scarify and loosen the excavated areas, unpaved surface areas, except rock, to a depth of at least 8 inches and compact in accordance with the specifications.

Perform the following test by an approved laboratory on excavated soils when used for roadway embankment: 1- Tex-145-E (Sulfate Content in Soils), 2- Tex-106-E (Plasticity Index). Provide the above-mentioned test results on sources outside of the right of way at no expense to the department. Contact the engineer for a list of approved laboratories. Notify the engineer 72 hours before sampling and testing material. Perform split-sample verification testing with the engineer when directed. The engineer will sample and test soils produced by the construction project for specification requirements or material sources specified in the plans.

Excavated shale is not an acceptable material for embankment.

Items 110 and 132:

Excavation and embankment for driveways, sleeper slabs, alleys and intersections will not be paid for directly, but will be considered subsidiary to this item.

Item 132:

Earth embankment Type C1 & C2, are mainly composed of materials other than shale. Furnish material that is free from vegetation or other objectionable material and that conforms to the requirements of Table 1 (Sheet B). If necessary, add lime slurry in accordance with Item 260, "Lime Treatment (Road-Mixed)" in order to meet these requirements. Use Tex-121-E, figure 1, page 5 to calculate the amount of lime required. Furnish materials containing sulfate at or below the threshold of 5000 parts per million (ppm). For materials with sulfate levels greater than 3000 ppm, allow the mixture to mellow for at least three days, or as directed. Test soil for sulfate levels in accordance with Tex-145-E. Use an approved laboratory to perform tests for sulfate and plasticity index and provide results on sources outside the right of way to the department. Contact the engineer for a list of approved laboratories. Notify the engineer 48 hours before sampling and testing materials. Perform split-sample verification testing with the engineer when directed. The engineer will sample and test materials produced by the construction project for specification requirements or material sources specified in the plans. The engineer will test materials placed or excavated to a depth of one foot below and laterally to one foot outside the proposed treatment limit. Lime treatment and testing of these materials will not be paid for directly, but will be considered subsidiary to this item.

Do not use shaley clays in embankment unless approved in writing.

Use embankment material Type C2 described in Table 1 "Soil Constants Requirements" for embankments behind bridge abutments to the extent of the bridge approach slabs, and other embankments enclosed by an abutment and / or retaining walls.

Item 160:

Sequence construction operations to salvage topsoil from one location and spread on areas ready to receive topsoil. Keep stockpiling of topsoil to a minimum.

Use fertile clay or loam from the project site not more than two feet below natural grade as topsoil.

Item 161:

Provide tickets representing quantity of compost delivered to site.

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Item 162:

Non-native sod (Buffalo grass) or seed shall be used in the following locations:

- STA. 391+98.00 (LT) to STA. 404+42.00 (LT)
- STA. 390+38.00 (RT) to STA. 412+42.00 (RT)
- STA. 417+15.00 (RT) to STA. 419+60.00 (RT)
- STA. 459+10.00 (RT) to STA. 460+93.00 (RT)

Bermuda sod or seed should not be used unless prior written approval from U.S. Army Corp of Engineers is obtained.

The contractor may walk into the valley storage mitigation site to inspect the area.

Item 260:

Furnish and distribute MS-2 smoothly and evenly at the rate of 0.20 gallons per square yard to cure lime, as directed.

Provide Hydrated Lime Slurry and apply lime by slurry placement method.

Item 301:

Provide liquid antistripping agents unless otherwise directed. Provide manufacturer's instruction for liquid antistripping agent.

Add the minimum percentage determined by the manufacturer and try subsequent trials at 0.25% increments, unless otherwise instructed by the manufacturer.

Items 305 and 354:

Separate the asphalt pavement from the base material. Stockpile $\frac{1}{4}$ of the asphalt pavement at the designated site on US 377 about 1.4 miles south of FM 1830 and the remaining $\frac{3}{4}$ of the asphalt pavement at the designated site at the intersection of US 377 and US 380 in Cross Roads and located approximately 21 miles from the project limits at FM 1171 and US 377. Place the asphalt pavement material in a stockpile that meets the dimensions and requirements designated by the engineer.

Stockpile materials in uniform piles up to 15 feet in height unless otherwise instructed. Furnish adequate equipment at the stockpile to keep and leave the materials in a neat and orderly manner.

Properly dispose of unsalvageable material at your own expense.

Slope longitudinal faces greater than 1 $\frac{1}{4}$ "To a minimum of 1:1 slope at the end of the work period if traffic is able to traverse the joint. Slope transverse tapers to a minimum of 36:1 at the end of the workday. Remove the taper prior to continuing the milling.

For open shoulder sections, plane the asphalt so the flow of water is not impeded at the shoulder edge or across the surface. Added planing up to three feet in width outside the lines and grades of the plans, necessary to provide proper drainage, will be subsidiary to the bid item.

Item 316:

Overlay all sealcoat within two weeks and prior to the end of asphalt season.

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Item 320:

The use of windrow pick-up equipment is allowed except on the first course of roadway material placed over the subgrade.

Item 3267 and 3268:

Tack Coat is required.

Design for a target Laboratory-molded density of 97.0% when using the TGC (Tex-204-F, Part I).

Use aggregate that meets the Surface Aggregate Classification (SAC) requirement of Class B.

Provide the engineer the opportunity to witness all mixture design tests. The engineer may require a retest if not given the opportunity to witness.

Dilution of tack is not allowed.

Provide PG binder 64-22 or 70-22 in Type B mixtures as shown in the plans.

Provide PG binder 70-22 in Type C mixture.

Dense-Graded Hot-Mix Asphalt used as concrete pavement underlayment is deemed as exempt production.

Item 360:

Use of multiple piece tiebars will be required. Provide chairs for multiple piece tiebars, threaded connectors or other adequate devices, used in concrete paving, or tie them to the pavement reinforcing steel. If approved by the engineer for specific areas, in lieu of multiple piece tiebars, drill holes into the pavement and grout straight tiebars in place with epoxy. Use a non-impact, rotary core drill to prevent damage to the pavement unless otherwise directed. Clean the drill holes and then completely fill with epoxy before inserting the tiebar. Do not bend the tiebars or insert them into plastic concrete without the approval of the engineer.

Provide curbs monolithically constructed with the concrete pavement. If continuous monolithic curb has to be temporarily omitted for any reason, provide dowelled curbs in the proposed areas, as detailed in the plans, and apply an approved epoxy resin to the pavement to receive the curb as directed. This work and materials will not be paid for directly, but is considered subsidiary to this item.

Stockpile the concrete aggregates at the plant site.

Provide pavement widening joints, as detailed in the plans, at all locations where concrete pavement is placed adjacent to existing concrete pavement. Installation of these joints is not paid for directly, but is considered subsidiary to this item.

Payment for furnishing and installing the pre-molded expansion joint material between the retaining walls and concrete pavement is not paid for directly, but is considered subsidiary to this item.

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Provide a curing machine equipped with rubber tires, or other acceptable arrangement, so that the machine will span the pavement and monolithic curb.

Curb transition is paid for as Type II curb.

The installation of curb openings is not paid for directly, but is considered subsidiary to this item.

Place construction, sawed and contraction joints in accordance with the pavement detail sheet and as directed. Joint locations, other than as shown on the plans, are subject to approval. Pavement leaveouts are required on this project as necessary to provide for traffic at driveways and side streets as shown in the plans or as directed. The cost of providing these leaveouts, including the construction of a suitable crossover connection at each site, is not paid for directly but is considered subsidiary to this item.

If a traveling form paver is used, provide one equipped with an electronically operated horizontal control device.

Provide tiebars in longitudinal joints but do not place them within 15 inches of transverse joints.

Use "mechanical steel placing equipment" at the discretion of the engineer.

Design Class HES to meet the requirements of Class P and a minimum average flexural strength of 400 psi or minimum average compressive strength of 2600 psi in 24 hr.

Contractor personnel performing job-control testing on concrete must be ACI- Certified. Provide a copy of certification paper to the Engineer upon arrival and before testing at job site. Furnish hard copies of calibration reports for testing equipment when non-TxDOT approved equipment is used to test concrete.

The engineer may allow the use of local commercial laboratories under contract to provide these services.

Item 400:

Structural Excavation is not paid for directly but is considered subsidiary to pertinent Items.

When placing concrete storm drain pipe on slopes of greater than 10 percent, provide cement stabilized backfill to a depth shown on the plans. The aggregate shall conform to the requirements of Article 421.2.E.2.

Item 416:

Provide a minimum of one core per bent, regardless of placement method.

Provide a formed smooth finish for all portions of drill shafts extending above proposed ground. Include cost for this work in the unit bid price for this item.

Traffic signal pole foundations will be paid for once regardless of extra work caused by obstructions.

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Install a 5/8"x10' copper clad ground rod in each traffic signal pole foundation. The ground rod for each foundation will protrude above the finish grade of the foundation a minimum of 1" and a maximum of 2".

Concrete removal required for installation of drilled shafts will be subsidiary to Item 416.

Item 420:

Apply an ordinary surface finish to all concrete surfaces within 30 days after form removal.

Form columns to a point a minimum of one foot below the proposed future or existing bottom of channel elevation indicated on the bridge layouts by an acceptable method. This form work is not paid for directly, but is considered subsidiary to this item.

BENT NUMBERING:

For bridges with four or more spans, number every third bent (counting the abutments) on the up-station and down-station faces of the outside column(s) at approximately the mid height of the column. For structures with three columns or less per bent, place numbers on column A. Where there are four or more columns per bent, place numbers on both outside columns. Bent numbers shall be as shown on the bridge layout.

Provide block numbers with a height of 6". Place numbers using appropriate die cut stencils and black paint.

All materials, labor and incidentals associated with placing bent numbers are subsidiary to the various bid items.

For bridges with aesthetic treatments, the numbering will be incorporated into the aesthetics package.

NATIONAL BRIDGE INVENTORY NUMBERS:

Provide National Bridge Inventory (NBI) numbers on all bridge structures and bridge class culverts.

Where beam types allow access to the face of abutment backwall, place NBI numbers on the face of each abutment backwall using 3" block numbers. Locate NBI numbers between the outside beams at opposite corners of the bridge.

Where beam types do not allow access to the face of abutment backwall, place NBI numbers on the face of each abutment cap using 3" block numbers. Locate NBI numbers below the outside beams at opposite corners of the bridge.

Where a bridge begins, ends or contains a bent common to multiple structures, place NBI numbers on both faces near both ends of the common bent cap. The number placed at each of the four locations will correspond to the NBI number assigned to the bridge immediately above the number. Locate NBI numbers below the outside beam. Place using 3" Block Numbers.

For Bridge Class Culverts, place National Bridge Inventory numbers at the middle of the downstream headwall using 3" block letters.

For all conditions, use appropriate die cut stencils and black paint for placement. All materials, labor and incidentals associated with placing NBI numbers are subsidiary to the various bid items.

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Item 421:

Furnish mix designs to the Engineer in a format compatible to the latest version of the Department's Construction Management System (Site Manager). Mix Design templates will be provided by the Engineer.

Provide High Performance Concrete (HPC) of the class specified for the following bridge components: approach slabs, abutments, bents, columns, slabs, sidewalks and medians.

Provide High Performance Concrete (HPC) of the class specified for all railing and permanent concrete traffic barrier placed on bridges or approach slabs. HPC concrete is not required for portions of rail or concrete traffic barrier not located on a bridge.

Provide sulfate resistant concrete for box culverts and all drilled shafts. At the contractor's option, a sulfate resistant high performance concrete may be used; however, high performance concrete is not considered sulfate resistant concrete when Class C fly ash and Type I cement is used in the mix design.

Maturity meters may be used for temperature gradient determination in mass concrete pours.

Strength evaluation using maturity testing, Tex-426-A, may be used for all concrete elements except drill shafts.

Provide a digital hydraulic compression testing Machine and accessories. The machine shall have a minimum testing range of 2500 pounds force to 250,000 pounds force with a hydraulic switching valve to allow for rapid advancing, hold, controlled advancing and rapid retracting. The machine shall have a load cell to measure compressive forces within the testing range and shall be calibrated and verified in accordance with ASTM latest version. The Machine can meet or exceed the following when approved by the Engineer:

Air-entrain all concrete except for Class "B" and concrete used in drilled shafts. For structural concrete, if the air content is more than 1.5% below the required air, follow manufacturer recommendations to add the necessary approved air bags to increase the air content at the job site. Limit the adding of air bags in the field to one trial. For structural concrete in abutments, bents and columns do not reject the load of concrete due to low air content; accept concrete based on strength tests. Structural concrete in approach slabs, slabs, sidewalks, medians and rails shall meet the provisions of the specification. Precast structural members do not require air entrainment.

Item 423:

The following Mechanically Stabilized Earth (MSE) panel type systems are approved for use on TxDOT projects:

Name

Manufacturer

Phone

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Reinforced Earth Walls	The Reinforced Earth Company 1331 Airport Freeway, Suite 302 Euless, TX 76040-4150	(817) 283-5503
Reinforced Soil Embankment Walls	Texas Welded Wire, Inc. 645 W. Hurst Blvd. Hurst, TX 76053	(817) 282-4560
Retained Earth Walls	Foster Geotechnical 901 North Highway 77 Hillsboro, TX 76645	(254) 580-9100
Stabilized Earth Wall	T&B Structural Systems 6800 Manhattan Blvd. Fort Worth, TX 76120	(888) 280-9858
Strengthened Soil Walls	Lewis Block & Supply Company P.O. Box 480615 Kansas City, MO 64148	(816) 572-6710
Structural Embankment, LLC	Structural Embankment, LLC 327 North Denton Rd., Suite 100 Weatherford, TX 76086	(817) 596-7500
Tensar Retaining Wall System	Tensar Earth Technologies, Inc. 2500 Northwinds Parkway Suite 500 Alpharetta, GA 30009	(770) 344-2090
Tricon Retained Soil Walls	Tricon Precast, Ltd. 15055 Henry Road Houston, TX 77060	(281) 931-9832
VP Wall System	Valley Prestress Products, Inc. 1520 Calhoun Rd. P.O. Box 309 Eagle Lake, TX 77434	(956) 584-5701

Experimental Status

The following system is on experimental status:

Name	Manufacturer	Phone
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MSE Plus

SSL Construction Products
4740 Scotts Valley Dr., Suite E
Scotts Valley, CA 95066

(831) 430-9300

Systems on experimental status have been reviewed and approved by TxDOT, but have not yet constructed walls on TxDOT projects. The supplier may be contacting districts and asking to be included on upcoming projects. These systems are expected to perform acceptably and should be considered for inclusion on projects.

Note: TxDOT policy does not allow the use of experimental systems on projects with:

- over 50,000 square feet of MSE wall,
- walls over 25 feet tall, or
- walls supporting or immediately adjacent to interstate highways.

Contact Us

Questions regarding the use of experimental systems may be directed to:

John Delphia
TxDOT Bridge Division
(512) 416-2359

The following Concrete Block Retaining Wall systems are approved for use on TxDOT projects:

Name	Manufacturer	Phone
Allan Block Retaining Walls	Eagle / Cordell Concrete 6415 Hardy St. Houston, TX 77022	(800) 933-5509
Amastone Earth Retention Systems	Geowestern, Inc. P.O. Box 620776 Littleton, CO 80162	(866) 761-0883
Anchor Wall System	Pavestone Company P.O. Box 1868 Grapevine, TX 76051	(817) 481-5802
Cornerstone Retaining Walls	Featherlite Building Products P.O. Box 425 Round Rock, TX 78680	(512) 255-2573
Keystone Retaining Walls	Jewell Concrete Products, Inc.	(800) 792-3216

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P.O. Box 7115
Waco, TX 78716

Magnumstone Retaining Wall
System

Hawk Precast
5002 Hwy. 380
Princeton, TX 75407

(972) 547-6652

Mesa Retaining Wall System

Tensar Earth Technologies,
Inc., Dallas
P.O. Box 2318
Rockwall, TX 75087

(214) 507-9694

Omega Walls

Shaw Technologies, Inc.
P.O. Box 654
Colleyville, TX 76034

(817) 427-0997

Pyramid Blockwalls

The Reinforced Earth Company
1331 Airport Freeway, Suite
302
Euless, TX 76040-4150

(817) 283-5503

Redi-Rock Retaining Walls

Redi-Rock International, LLC
05481 US 31 South
Charlevoix, MI 49720

(866) 222-8400

Rockwood Retaining Walls

Western Brick
1603 Spur 529
Rosenberg, TX 77471

(281) 344-0190

Stone Strong Systems

Stone Strong, LLC
3701 Union Drive, Suite 101
Lincoln, NE 68516

(877) 501-5652

Stonewall Retaining Walls

Featherlite Building Products
P.O. Box 1029
Austin, TX 78767

(512) 472-2424

T-Block Retaining Wall System

T&B Structural Systems
637 W. Hurst Blvd.
Hurst, TX 76053

(817) 280-9858

Venture Retaining Walls

Venture Retaining Wall
Systems
1333 West 120th Ave.
Suite 312
Denver, CO 80234

(303) 254-8846

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Versa-Lok Retaining Walls

Palestine Concrete
2202 Chockhill Road
Dallas, TX 75212

(972) 263-5077

Experimental Status

The following Concrete Block Retaining Wall systems are on experimental status*:

Name	Manufacturer	Phone
ReCon Wall Systems	ReCon Wall Systems, Inc. 7600 W. 27th St., #229 St. Louis Park, MN 55426	(952) 922-0027
Trinity Wall System	Earth Reinforcement Technologies, LLC 1427 Walcutt's Way Marietta, GA 30064	(678) 445-4022

*Systems on experimental status have been reviewed and approved by TxDOT, but have not yet been used on TxDOT projects. These systems are expected to perform acceptably and should be considered for use on projects.

Note: TxDOT policy does not allow the use of experimental systems on projects with over 50,000 square feet of block wall, walls over 25 feet tall, or walls supporting or immediately adjacent to interstate highways.

Contact Us

Questions regarding the use of experimental systems may be directed to:

John Delphia
TxDOT Bridge Division
(512) 416-2359

Will have a uniform texture and appearance.

Unless otherwise noted in the plans, the top of the leveling pad is located 2 feet below the proposed ground.

Square foot surface area of retaining wall is measured from the top of retaining wall to the top of the leveling pad. Footing adjustments made to accommodate the available optional retaining walls are not measured.

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Unless otherwise shown on the plans, provide Type A backfill as defined under this item for permanent MSE walls not subject to inundation. Unless otherwise shown on the plans, provide type D backfill as defined under this item for walls subject to inundation.

Supply drainage aggregate meeting the requirements of this item for use as filter material with the retaining wall.

Cement-Stabilized Backfill (CSB) is not permitted.
RAP is not acceptable as backfill for MSE retaining walls.

Unless otherwise noted on the plans, provide flowable backfill meeting the requirements of Item 401 between the back of panels and inlets or drainage pipes where the required compaction cannot be achieved. Flowable backfill used for this purpose is subsidiary to this item.

Provide earth reinforcements with a length greater than or equal to 70 percent of the wall height for walls 01, 02, 03 and 04, 140 percent of the wall height for wall 05, and 150 percent of the wall height for wall 06, or 8 feet whichever is greater. Earth reinforcement length is measured perpendicular to the wall. Adjust skewed earth reinforcements as necessary to obtain required length.

Submit design calculations supporting the details necessary to incorporate coping, railing, inlets, drainage, electrical conduits and any additional necessary features.

The contractor has the option of constructing any of the types of retaining walls for which details and specifications are included in the plans. Footing adjustments made to accommodate the available optional retaining walls are not measured. Regardless of option or options chosen, use the same fascia pattern throughout the entire project, including cast in place full height retaining walls or retaining wall type abutments.

Submit detailed drawings depicting the patterns and matching of precast with cast-in-place for approval.

Form the map of Texas emblem into a wall panel next to each bridge abutment. Engineer approval of the exact location of each emblem is required. The cost of forming emblems is considered subsidiary to this item. Inset the map of Texas a minimum of $\frac{3}{4}$ inch into the face of the panel, and provide a smooth finish with an engineer approved contrasting color.

At contractor's expense, repair all damage to the precast units (such as chips) as required to match the fascia pattern.

Use Embankment Type C3 as select embankment backfill as defined under Item 423.2.C.2, Type D for reinforcement zones for retaining walls 01 – 06, and retained zones for walls 05 & 06.

For non-select embankment fill in retained zones behind retaining walls 01 – 04, provide and install fill in accordance with Item 132, Type C2.

For cut walls, the backfill between the select fill zone and the existing ground shall be either select material as required for the select fill zone or backfill meeting or exceeding the requirements of Item 132, type C2. Place material in accordance with Item 132, Type C2 requirements. If existing ground is

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laid back (i.e. not vertical), the lay back shall be done as a series of equal height benches so as to prevent the formation of a smooth surface at the material interface.

Avoid distinct vertical joints between select backfill and embankment (Non-Select) backfill as required by Section 423.3.E. This may be conveniently done by providing a zone of material behind the strap zone (1' min width) in which alternating lifts of select and non select materials are interlaced.

Items 423 and 427:

Unless otherwise noted on the plans, provide a striated finish on all retaining walls and retaining wall type bridge abutments. Supply form liners providing a finish similar to that derived from Lithotex Formliner Pattern T-2150, "Fractured Fin-Grooved", by the I. M. Scofield Company, Pattern P/C 30717, "¾ inch deep Fractured Fin", by Simons, Pattern 373 "Fractured Fin", by Greenstreak, "Adams Rib – Pattern 16950" by Fitzgerald or equal. Maximum depth of the striations is ¾ inch.

For cast in place walls, cast the top two feet smooth.

Retaining wall colors are shown elsewhere in the plans.

Item 427:

Finish concrete structures surface area I with an opaque sealer of the color(s) shown elsewhere in the plans in accordance Item 427.

Apply a 4-SF sample of each color on the project surfaces for approval. Adjust color as required by Engineer to compensate for surroundings and natural lighting conditions on the project site.

Ensure that surfaces are free of weak surface material, curing compounds and other surface contaminants prior to coating.

FORM LINER FINISHES: Place architectural concrete treatments as shown. Placement is subsidiary to this item.

Where used, provide fractured fin/ribs/striations that are continuous with no apparent curves or discontinuities. Variations of the fractured ribs from true vertical exceeding ¼" for each 4'-0" of panel height are not acceptable.

Provide form liners that release without leaving pieces of liner material on the concrete and without pulling or breaking concrete from the textured surface. Provide form release agents as recommended by the manufacturer. Replace form liners as directed that have become damaged or worn. Replacement of form liners is considered incidental to the work and no additional compensation is provided.

No horizontal splices in the form liner are permitted. Vertical splices may occur only in valleys between fractured ribs.

Provide sample panels a minimum of ten days in advance of starting construction of the textured concrete surfaces. Construct sample panel(s) in accordance with Item 427.4.B.2.d "Form Liner Finish" using each type of approved form liner. Sample panels must meet the requirements of the plans and specifications and be approved before any construction form liners may be ordered, obtained or used.

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Provide panels having a textured portion at least 5'-0" by 5'-0" with a representative un-textured surrounding surface. If directed, construct and finish additional test panels until a satisfactory concrete surface texture is obtained.

The approved sample panel is the standard of comparison for the production concrete surface texture. If directed, build a new test panel to demonstrate acceptability of any proposed change in construction method.

Tool or replace areas requiring surface treatment that do not match their associated sample panels. Upon completion, tooled or replaced panels must match the associated sample panel. Tooling or replacement is at the contractor's expense.

For proper placement of the expansion joint behind the rail, omit surface finish from the top of T551 (RW) (DAL) rail to bottom of panel as directed.

Joint reveal details and location may vary slightly from what is shown to match the adjacent MSE walls as directed. No additional compensation will be allowed.

Item 428:

Provide a Class II surface treatment.

Apply concrete surface treatment to the widened portions of bridge structures only.

Do not treat the inside face of concrete rails.

Item 440:

Provide reinforcing steel with epoxy coating meeting the requirements of item 440 for the following bridge components: approach slab, slab, sidewalk, median, concrete traffic barrier, and rail.

Epoxy coated reinforcing is not required for portions of rail or concrete traffic barrier not located on a bridge.

Reinforcing for abutments, bents and columns are not required to be epoxy coated.

R-bars (I-beams, U-beams and TX Girders), Z-bars (boxes), H-bars (Slab beams), and C-bars (DT beams) are not required to be epoxy coated.

For bridge widening, existing uncoated reinforcing in the slab exposed during slab removal shall receive an abrasive blast cleaning followed closely by an application of BASF Emaco P25, Sika Armatec 110 EpoCem or Euclid Duralprep A.C. Perform all work in accordance with manufacturer's specifications. Cleaning and coating operations must be performed no more than 7 days prior to placement of the concrete. In the event more than 7 days is required between initial coating and slab placement, the contractor shall apply a second coat of the same material used initially to the bars approximately 1 day prior to placement of the concrete. This work is considered subsidiary to the various bid items.

All ties, chairs and other appurtenances used with epoxy coated reinforcing shall be epoxy coated or non-metallic.

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Fiber Reinforced Concrete (FRC) can be used as a substitute for Non-Structural Class Reinforced Concrete in Mow-Strip and Rip Rap Items as approved. FRC may also be used for other Non-Structural Class Reinforced Concrete Items as approved.

Item 442:

Use temperature Zone 1 for CVN testing.

Item 449:

Use Crouse Hinds TL-2, OZ/Gedney Stl, Thomas & Betts Kopr-Shield or other approved electrically conducting lubricant compound.

Item 464:

The concrete collars and the connections of pipes to existing or proposed concrete boxes or pipe will not be paid for directly but will be considered subsidiary to the various bid items.

At locations where storm drains dead-end, plug with a concrete plug of a thickness equal to 1 ½ inches per foot of diameter of pipe with a minimum thickness of 3 inches. The cost of the plugs shall be included in the unit price bid per foot of the various storm drain pipes.

Item 471:

Tackweld all inlet grates and manhole covers to the frame with two 1-inch welds. Supply un-painted cast iron inlet grate and frame and/or cast iron manhole frame and cover.

Item 496:

Concrete pavement removed as a result of removing the inlets will not be paid for directly but will be considered as subsidiary to Item 496.

Inlet grates and manhole covers become the property of the contractor for disposal.

Item 502:

Provide written proposed lane closure information by 1:00 pm on the business day prior to the proposed closures. Do not close lanes when this requirement is not met.

When excavation is required next to a pavement lane carrying traffic and the widening is not completed by the end of the work day, backfill against the edge of the pavement with at least a 3:1 slope using an acceptable material to support vehicular traffic. Carefully remove and dispose of this material when work resumes. Backfilling pavement edges, and the materials required for the work will be subsidiary to this item.

Place barricades and signs in locations that do not obstruct the sight distance of drivers entering the highway from driveways or side streets.

Provide rectangular shape (CW12-2P) Temporary Clearance Signs on all bridges where the existing vertical clearance has changed. Install Signs to the satisfaction of the Engineer prior to opening to traffic. Plywood sign blanks will have minimum dimensions of 84" X 12". Work performed and materials are subsidiary to this item.

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Do not commence work on the road before sunrise. Do not operate or park any equipment/machinery closer than 30 feet from the traveled roadway after sunset unless authorized by the engineer.

When moving unlicensed equipment on or across any pavement or public highways, protect the pavement from all damage using an acceptable method.

As approved by the Engineer, provide uniformed off duty police officers and squad cars during lane or ramp closures, night time work or other situations that indicate a need for additional traffic control to protect the traveling public or the construction workforce. Provide documentation such as payroll, log sheets with signatures and badge number, or invoices from the government entity providing the officers for reimbursement. Complete the weekly tracking form provided by the department and submit invoices that agree with the tracking form for payment at the end of each month approved services were provided. Reimbursement will not be made for coordination fees charged by the police department.

Limit lane closures along FM 1171 to the hours between 9:00 am and 3:30 pm. Work in other areas of the project is not restricted to this time frame.

The contractor shall plan his work such that no work is ongoing and all lanes of traffic are available for the NASCAR series races at the Texas Motor Speedway starting the Thursday of race week through Sunday. These races are run usually in early April and Mid-November. The contractor will not be allowed to have any lane closures on the day of the INDY car races, one of which is usually scheduled during the beginning of June and the other is usually scheduled during Mid-September. Scheduled events at Texas Motor Speedway may be reviewed at their website: <http://www.texasmotorspeedway.com/>. All incomplete work activities will need to be shaped up prior to the race events so as to pose no hazard to traffic. The above is applicable to each year the work is ongoing. Time will not be charged on these days.

Item 504:

Furnish one Field Office (Type B) and Lab for this project.

Provide one local phone line to the field office. Supply one phone jack and one telephone per each room in the field office. The cost of the phone installation and various monthly phone service charges will be the contractor's responsibility.

Chain link fencing will be provided around the field office/laboratory and parking areas.

Provide an all in one printer/scanner/fax/copier capable of printing 11" x 17" plots with software that is compatible with TxDOT equipment, cost not in excess of \$300. This is subsidiary to the various bid items.

Item 508:

Testing of materials used in the construction of a temporary detour may be waived when approved by the Engineer.

Item 512:

The contractor will furnish pre-cast F Shape Barriers for traffic control, and remove and retain possession of non-permanent traffic barrier at the end of the project. Pre-cast F Shape Barriers must

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have drainage slots as detailed on the Concrete Safety Barrier Standards. Submit for approval the type of barrier joint connection proposed for the project."

Item 529:

Provide grooved joints at 10-foot intervals and $\frac{3}{4}$ inch expansion joint material for doweled curb at the same locations as on the existing pavement.

For Curb and Gutter sections, provide grooved joints at 10-foot intervals and $\frac{3}{4}$ inch expansion joint material at a maximum of 50-foot centers and at all radius points and inlets.

Curb and Gutter transitions will be paid for by the foot at the unit price for the corresponding curb or curb and gutter section.

Saw joints at the same location as on the existing pavement.

Item 536:

Use Class "B" concrete for concrete medians and directional islands.

Item 540:

Furnish one type of post throughout the project except as specifically noted in the plans.

Item 542:

Salvage metal beam guard fence removed from this project and retain possession at the end of the project. The work involved in hauling this material will not be paid for directly, but will be considered subsidiary to this item.

Remove or cut off existing anchor bolts and fill holes with grout in bridge slabs as directed.

Item 545:

The contractor will furnish crash cushion attenuators for traffic control, and remove and retain possession of the majority of the attenuators at the end of the project. Five (5) undamaged attenuators and hardware shall be returned at the end of the project. Stockpile crash cushion attenuators to the storage area located to the west on Bonnie Brae Rd and just south of IH-35E in Denton, TX. The work involved in hauling this material will not be paid for directly, but will be considered subsidiary to this item.

Item 556:

The unit price bid per linear foot of "pipe underdrain" shall include the cost of making connections to storm sewer lines.

Place bell and spigot type pipe with an open joint of approximately $\frac{3}{4}$ inch.

In the event that Type 5 Underdrain Pipe is bid, make the connection as shown in the plans. The cost of making the connection will be considered subsidiary to this item.

The requirements for decantation of filter material are deleted for this project.

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Use Surface Test Type A on all intersections and driveways.

Use Surface Test Type B pay adjustment schedule 2 on FM 1171.

Use Surface Test Type B pay adjustment schedule 3 on FM 1171 HMA transitions.

Item 618:

Secure permission and approval from the proper authority prior to cutting into or removing any sidewalks or curbs for installation of this Item.

The location of conduit and ground boxes are diagrammatic only and may be shifted to accommodate field conditions as directed.

Place conduit under existing pavement by an approved boring method. Do not place boring pits closer than 2 feet from the edge of the pavement unless otherwise directed. Do not use water jetting. When conduits are bored, do not exceed 18 inches in the vertical and horizontal tolerances as measured from the intended target point.

Do not use a pneumatically driven device for punching holes beneath the pavement (commonly known as a "missile").

Furnish and install a non-metallic pull rope in conduit runs that are longer than 50 feet.

Use a colored cleaner-primer on all PVC-to-PVC joints before application of PVC cement.

Seal all conduit ends with a permanently soft, non-toxic duct seal. Use a duct seal that does not adversely affect other plastic materials or corrode metals.

Furnish and install non-metallic pull ropes in conduit installed for future use and cap using standard weather-tight conduit caps, as approved. This work will not be paid for directly, but is subsidiary to this Item.

2" Schedule 80 PVC will be used at the power pole to supply electricity to underground services.

Item 620:

The equipment grounding conductor shall be identified by a continuous green colored jacket insulation or bare wire. Grounded conductors (Neutral) shall be identified by a continuous white colored jacket. Ungrounded conductors (Hot) in a 120/240v or 240/480v system shall be identified by each pole or leg. For 240-volt branch circuit fed from 120/240 source and 480-volt branch circuit fed from 240/480 source, ensure one leg is identified by a continuous black colored jacket and the other leg by a continuous red colored jacket.

For ped poles (Item 687) within the project, provide single-pole non-fused watertight breakaway electrical connectors for frangible pedestal pole bases.

Item 624:

Slack conductors required by Standard Sheet ED(2)-03 will be subsidiary to Item 624.

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Concrete removal required for installation of ground boxes will be subsidiary to Item 624.

Item 627:

Use the timber pole heights, as shown on the plans and in the material summary, for bidding purposes only. Coordinate pole locations, and make field measurements before construction to ensure a vertical clearance of 17 to 19 feet from the highest point on the roadway surface to the span. In addition, place the signal heads a minimum of 40 feet and a maximum of 180 feet from the stop line. If the nearest signal must be more than 180 feet from the stop line, place a supplemental near-side signal head. Determine the field measurements and elevations from the actual field location of the poles, considering all above and below ground utilities and existing roadway elevations.

Item 628:

Contact the appropriate utility company during the first three weeks of the project lead-time period to allow adequate time for any necessary utility adjustments, transformer installation, etc.

Label the service enclosures indicating service address as well as all required information as shown on the Electrical Detail (ED) standard sheets. Labeling shall be silk screening or other acceptable method. This work will not be paid for directly, but is subsidiary to this Item.

When concrete for service pole foundations is required, use Class A in accordance with Item 421, "Hydraulic Cement Concrete", except consider the concrete subsidiary to Item 628 for payment purposes. When reinforcing steel for service pole foundations is required, it will be in accordance with Item 440, "Reinforcing Steel", except consider the steel subsidiary to Item 628 for payment purposes.

Use only white insulated wire for neutral wire.

Bill the electrical service power usage to Town of Flower Mound.

Item 644:

Prior to taking elevations to determine lengths for fabrication of sign posts and/or sign support towers, obtain verification of all proposed locations.

Provide field galvanizing and metallizing equipment, as per Item 445, at all times and make repairs to galvanized surfaces according to the above specification item at intervals as directed.

After sign supports with signs attached have been erected, wash individual units requiring cleaning with an approved cleaning solution to remove all grease, oil, dirt, smears, streaks, and other foreign particles.

Provide six (6) sets of shop drawings for signs. The shop drawings shall conform to the details shown on the plans. The shop drawings shall show the details of the panels, wind beam, stiffeners, joint backing plates, splices, fasteners, brackets, and sign support connections. The shop drawings shall show letter types and sizes, interline spacing and message arrangements.

Affix a sign identification decal to the back of all signs in accordance with Item 643.

Item 656:

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Before placing the concrete for the controller foundation, coordinate with the Town of Flower Mound to ensure that the anchor bolt spacing will match the anchor bolts and cabinet supplied by the city.

Form a 3/4-inch chamfer on the top edge of each signal pole foundation.

Probe for utilities and underground structures prior to drilling foundations. Foundations shall be paid for once regardless of extra work caused by obstructions.

Item 672:

Black adhesive will be used on asphalt pavements. White adhesive will be used on concrete pavements.

Item 677:

A water blasting method approved by the Engineer will be the only method allowed for the removal of permanent and temporary pavement markings.

Item 680:

Requirements for this Item include the following work, all of which are subsidiary to this Item:

1. Notify Town of Flower Mound at 972-874-6303 one week before beginning any work involving traffic signals.
2. Provide submittal literature for all traffic signal equipment before installation.
3. Install traffic signal controller cabinet and BBU supplied by Town of Flower Mound.
4. Install the controller cabinet in an orientation as directed.
5. Connect all field wiring to the controller assembly. The Town of Flower Mound will assist in determining how the detection cables are to be connected, and will also program the controller for operation, hook up the malfunction management unit (MMU) or conflict monitor, detector units, and other equipment, and turn on the controller. Pick up the signal cabinet from the Town of Flower Mound. Have a qualified technician on the project site to place the traffic signals in operation.
6. Install the sign panels supplied for mounting on signal poles, mast arms, and span wires. Furnish and install all other signs in accordance to Item 636. Furnish all mounting hardware for all signs. Mount signs with Astro-Sign Brac, Signfix aluminum channel, or equal as approved by the Engineer.
7. Use multi-tap ballasts (120/240 volts) for luminaires on signal poles.
8. Relocate existing Opticom equipment as shown on plans.
9. Use qualified personnel to respond to and diagnose all trouble calls during the thirty-day test period. Repair any malfunction to Contractor-supplied signal equipment. Provide to the Engineer a local telephone number, not subject to frequent changes and available on a 24-hour basis, for reporting trouble calls. Response time to reported calls must be less than 2 hours. Make appropriate repairs within 24 hours. Place a logbook in the controller cabinet and keep a record of each trouble call reported. Notify the Engineer of each trouble call. Do not clear the error log in the conflict monitor or MMU during the thirty-day test period without approval.
10. Prevent any damage to property owner's poles, fences, shrubs, mailboxes, etc. Protect all underground and overhead utilities and repair any damage. Provide access to all driveways during construction.
11. The concrete foundation for the controller as shown on the TS-CF-04 is diagrammatic and the dimensions will be adjusted in the field to fit existing conditions.
12. Relocate existing radio as shown on plans.

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13. Install red confirmation lights and Ethernet cable furnished by the Town of Flower Mound.

Item 681:

Requirements for this Item include the following work, all of which are subsidiary to this Item:

1. Re-guy signal heads and re-strap the cable after making adjustments to head locations. Accomplish relocation of signal heads for a phase change during the same day.
2. Bottom tether cable for signal heads and signs will be required for all temporary signals.
3. Provide submittal literature for all traffic signal equipment before installation.
4. Install the supplied traffic signal controller and cabinet as provided by the Town of Flower Mound for the location of US 377. Install the controller cabinet in an orientation as directed.
5. Connect all field wiring to the controller assembly. The Town of Flower Mound will assist in determining how the VIVDS cables are to be connected, and will also program the controller for operation, hook up the conflict monitor, VIVDS units, and other equipment, and turn on the controller. Pick up the signal cabinet from the Town of Flower Mound. Have a qualified technician and a representative from the Town of Flower Mound Traffic Signal department on the project site to place the traffic signals in operation.
6. Operation and maintenance of the temporary signal includes repair of Contractor-supplied equipment, providing a telephone number to the Town of Flower Mound for trouble calls, adjustment of timing, and the generation and implementation of traffic signal timing during all phases of the project.
7. Install Opticom equipment supplied by the Town of Flower Mound at US 377.
8. Relocate existing VIVDS equipment, radio and signs at US 377.
9. Existing traffic signals at High Rd. and Tour 18 Dr. will be utilized for temporary signals.
10. The equipment furnished by the Contractor and installed for the temporary signals shall remain the property of the contractor.

Item 682:

Install signal head attachments so that the wiring to each signal head passes from the mast arm through the attachment hardware to the signal head. Do not leave cable or wiring exposed.

Provide signal head attachments that allow for adjustment about the horizontal and vertical axis.

Provide aluminum signal heads and aluminum tubing in the following color: Federal Yellow #13538 of Federal Standard 595. Provide back plates, louvers, and the inside of visors with a flat black finish. Provide vented back plates for all traffic signal heads.

Turn down signal heads or cover with burlap or other material, as approved, until traffic signal is placed in operation.

Mount signal heads level and plumb and aimed as directed.

Item 684:

Provide stranded 14 AWG Type A signal cables.

Provide a separate multi-conductor signal cable (14 AWG) inside pedestal poles and signal poles from the terminal strip to each signal head as shown on the plans.

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Identify each cable as shown on the plans (cable 1, etc.) with permanent marking labels (Panduit Type PLM standard single marker tie, Thomas&Betts Type 548M, or equal) at each ground box, pole base, and controller.

Item 686:

Provide 12 circuit Buchanan Type 112SN, Kulka Type 985-GP-12 CU, or equal terminal strips in the signal pole access compartment. Provide additional terminal strips of 8 circuits each when more than 12 circuits are required. The conductors for the Line and Load side of the terminal strip shall be identified with a plastic label with two straps per tag. The line side shall have each signal head, PED head, and push button identified on the tag.

Mark pole shafts and mast arms with the identification numbers from the plans to facilitate field-assembly. Identify pole shafts and mast arms by intersection for projects with multiple intersections.

Provide nuts on top and bottom (double nuts) of the base plate as shown on the plans.

Set anchor bolts for mast arm signal poles and strain poles so that two are in tension and two are in compression. Obtain approval of anchor bolt placement before placing concrete.

Provide vertical clearance of 17 to 19 feet from the roadway to the lowest point of the signal head or mast arm. Place signal heads 40 feet minimum and 180 feet maximum from the stop line. If the nearest signal is more than 180 feet from the stop line, place a supplemental near-side signal head. Determine the field measurements and elevations from the actual field location of the poles, considering all above and below ground utilities and existing roadway elevations.

Provide vibration dampers for mast arms 28 to 48 feet in length. Install as shown on MA-DPD-12.

All signal poles will be powder coated Forest Green RAL #6005.

Item 730:

At the discretion of the Engineer, mow non-paved areas within the project prior to placement of permanent vegetation. Mow up to three (3) cycles per growing season.

Item 1122:

Take all practicable precautions to prevent debris from being discharged into the Waters of Texas or a designated wetland. Install Best Management Practices before demolition begins and maintain them during the demolition. Remove any debris or construction material that escapes containment devices and are discharged into the restricted areas, before the next rain event or within 24 hours of the discharge.

If temporary construction stream crossings are allowed under a Nationwide Permit, submit in writing for approval the type and location of each temporary stream crossing. Use temporary bridges, timber mats, or other structurally sound and non-eroding material for temporary stream crossings. A temporary culvert crossing will consist of storm sewer pipes and 4- to 8-inch nominal size rock. Temporary stream crossings must not cause more than minimal changes to the hydraulic flow characteristics of the stream, increase flooding, or cause more than minimal degradation of water quality. Remove the temporary stream crossings in their entirety and return the affected areas to their

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pre-existing elevation. All work and materials use for temporary construction stream crossings will not be paid for directly but are subsidiary to pertinent Items.

Obtain from the Engineer a copy of the project's TPDES Storm Water Program and Notice of Intent or Construction Site Notice. Laminate the sheets and bond with adhesive to 36" X 48" plywood sign blanks. Ensure the sheets remain dry. Apply Type C Blue reflective sheeting as the background and add the text "SW3P" in 5" white lettering, centered at the top. Attach the signs to approved temporary mounts and locate at each of the project limits or as directed by the Engineer. SW3P Signs, maintenance, and repostings will be subsidiary to Item 502

Item 6007:

Salvage the existing traffic signals at US 377, High Road and Tour 18 Drive as shown on the plans. Salvage poles, cabinets, service equipment, exposed conduit, radio equipment, VIVDS equipment, Opticom equipment and any other equipment as directed. This equipment will remain the property of the Town of Flower Mound if not relocated to the temporary or permanent signals. Maintain the operation of the existing traffic signal until directed to remove it. Completely remove timber poles not set in concrete without cutting off the pole. Timber poles set in concrete are considered unsalvageable.

Existing traffic signals at High Rd. and Tour 18 Dr. will be utilized for temporary signals.

Item 8835:

If a traffic or pedestrian signal pole includes two APS units, or if the APS units cannot be installed a minimum of 10' apart, speech walk messages shall be used. Each speech walk message shall be programmed to clearly state the name of the roadway to be crossed as a result of activating that particular APS unit.

Verify the location of the push button assemblies and the direction of the arrows on the signs prior to installation.

The list of material below is for the Contractor's information only.

It is the responsibility of the Contractor to verify all items and quantities listed below.

**LIST OF MATERIAL/LABOR
SUBSIDIARY TO ITEM 680**

FM 1171 AT US 377

	UNIT	QUANTITY
250W HPS LUMINAIRE	EA	4
FURNISH AND INSTALL SIGN R10-12	EA	4
INSTALL STREET NAME SIGN	EA	4
RELOCATE RADIO/ANTENNA	EA	1
RELOCATE OPTICOM SENSORS	EA	4
INSTALL OPTICOM CABLE	LF	915
INSTALL ETHERNET CABLE	LF	63
INSTALL RED ENFORCEMENT LAMPS	EA	4
WIRING THE CABINET AND ACCESSORIES	LS	1

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FM 1171 AT TOUR 18

INSTALL CONTROLLER CABINET/BBU	EA	1
INSTALL STREET NAME SIGN	EA	4
FURNISH AND INSTALL SIGN R10-12, R3-8MR, R9-3	EA	9
RELOCATE RADIO/ANTENNA	EA	1
RELOCATE OPTICOM SENSORS	EA	4
TRAFFIC SIGNAL CONTROLLER BASE	EA	1
CONCRETE FOUNDATION (8'X9'X6", CLASS B)	CY	1.3
INSTALL OPTICOM CABLE	LF	827
INSTALL ETHERNET CABLE	LF	53
INSTALL RED ENFORCEMENT LAMPS	EA	4
250W HPS LUMINAIRE	EA	4
WIRING THE CABINET AND ACCESSORIES	LS	1

FM 1171 AT HIGH RD.

DESCRIPTION	UNIT	QUANTITY
250W HPS LUMINAIRE	EA	3
INSTALL CONTROLLER CABINET/BBU	EA	1
TRAFFIC SIGNAL CONTROLLER BASE	EA	1
CONCRETE PAD (8'X9'X6", CLASS B)	CY	1.3
FURNISH & INSTALL REGULATORY SIGN(R10-12, R10-12(SPL))	EA	2
INSTALL OPTICOM CABLE	LF	610
INSTALL ETHERNET CABLE	LF	132
INSTALL RED ENFORCEMENT LAMPS	EA	3
INSTALL STREET NAME SIGN	EA	3
RELOCATE OPTICOM SENSORS	EA	3
RELOCATE RADIO/ANTENNA	EA	1
WIRING THE CABINET AND ACCESSORIES	LS	1

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The list of material below is for the Contractor's information only.
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**LIST OF MATERIAL/LABOR
SUBSIDIARY TO ITEM 681**

FM 1171 AT US 377

DESCRIPTION	UNIT	QUANTITY
40' TIMBER POLE (CLASS 2)	EA	4
8' LUMINAIRE MAST ARM FOR WOOD POLE W/ 250W HPS LUMINAIRE	EA	4
INSTALL CONTROLLER CABINET/BBU	EA	1
INSTALL OPTICOM CABLE	LF	905
INSTALL ETHERNET CABLE	LF	39
INSTALL VIVDS CABLE	LF	854
TRAFFIC SIGNAL CONTROLLER BASE	EA	1
CONCRETE PAD (8'X9'X6", CLASS B)	CY	1.3
CABLE STRAPS	EA	548
3/8" ZINC COATED STRANDED STEEL CABLE	LF	3215
1/4" ZINC COATED STRANDED STEEL CABLE	LF	624
GROUND ANCHORS	EA	8

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YELLOW PLASTIC GUY GUARDS	EA	8
DOUBLE EYE ANCHOR ROD	EA	8
INSTALL OPTICOM SENSOR	EA	4
RELOCATE EXISTING RADIO ANTENNA	EA	1
RELOCATE EXISTING VIVDS CAMERA	EA	4
5/8" X 8' COPPERCLAD GROUND ROD W/ CLAMP	EA	1
2" WEATHER HEAD	EA	4
3" WEATHER HEAD	EA	2
CONDUIT (RM) (2 IN)	LF	32
CONDUIT (RM) (3 IN)	LF	36
CONDUIT (PVC) (SCHD 40) (2 IN)	LF	18
CONDUIT (PVC) (SCHD 40) (3 IN)	LF	20
CONDUIT (PVC) (SCHD 40) (4 IN)	LF	22
GROUND BOX TY D (162922) W/APRON	EA	1
ELEC CONDR (NO.8) INSULATED	LF	1224
ELEC CONDR (NO.6) INSULATED	LF	58
ELEC CONDR (NO.6) BARE	LF	128
ELEC CONDR (NO.4) INSULATED	LF	T.B.D.
BACK PLATE (12 IN) (3 SEC)	EA	4
BACK PLATE (12 IN) (5 SEC)	EA	4
VEH SIG SEC (12 IN) INC (RED)	EA	8
VEH SIG SEC (12 IN) INC (YEL)	EA	8
VEH SIG SEC (12 IN) INC (GRN)	EA	8
VEH SIG SEC (12 IN) INC (YEL ARW)	EA	4
VEH SIG SEC (12 IN) INC (GRN ARW)	EA	4
TRF SIG CBL (TY A) (14 AWG) (9 CONDR)	LF	905
REMOVE AND REINSTALL O.H. ST NAME SIGNS	EA	4
REMOVE AND REINSTALL REGULATORY SIGNS	EA	4

The list of material below is for the Contractor's information only.
It is the responsibility of the Contractor to verify all items and quantities listed below.

**LIST OF MATERIAL/LABOR
FURNISHED BY THE TOWN OF FLOWER MOUND**

FM 1171 AT US 377

DESCRIPTION	UNIT	QUANTITY
STREET NAME SIGN	EA	4
CONTROLLER CABINET/BBU	EA	1
ETHERNET CABLE	LF	102
VIVDS CAMERA	EA	8
RED ENFORCEMENT LAMPS	EA	4
OPTICOM SENSOR	EA	4
OPTICOM CABLE	LF	1820

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VIVDS CABLE	LF	2720
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FM 1171 AT TOUR 18

DESCRIPTION	UNIT	QUANTITY
STREET NAME SIGN	EA	4
CONTROLLER CABINET/BBU	EA	1
ETHERNET CABLE	LF	53
VIVDS CAMERA	EA	6
RED ENFORCEMENT LAMPS	EA	4
OPTICOM CABLE	LF	827
VIVDS CABLE	LF	1159

FM 1171 AT HIGH RD.

DESCRIPTION	UNIT	QUANTITY
STREET NAME SIGN	EA	3
CONTROLLER CABINET/BBU	EA	1
ETHERNET CABLE	LF	132
VIVDS CAMERA	EA	5
RED ENFORCEMENT LAMPS	EA	3
OPTICOM CABLE	LF	610
VIVDS CABLE	LF	1052

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HIGHWAY : FM 1171
COUNTY : DENTON

TEXAS DEPARTMENT OF TRANSPORTATION

GOVERNING SPECIFICATIONS AND SPECIAL PROVISIONS

ALL SPECIFICATIONS AND SPECIAL PROVISIONS APPLICABLE TO THIS PROJECT
ARE IDENTIFIED AS FOLLOWS:

STANDARD SPECIFICATIONS: ADOPTED BY THE TEXAS DEPARTMENT OF
----- TRANSPORTATION JUNE 1, 2004.
STANDARD SPECIFICATIONS ARE INCORPORATED
INTO THE CONTRACT BY REFERENCE.

ITEMS 1 TO 9 INCL., GENERAL REQUIREMENTS AND COVENANTS
ITEM 100 PREPARING RIGHT OF WAY (103)(504)
ITEM 104 REMOVING CONCRETE
ITEM 110 EXCAVATION (132)
ITEM 132 EMBANKMENT (100)(204)(210)(216)(400)
ITEM 160 TOPSOIL
ITEM 161 COMPOST (160)
ITEM 162 SODDING FOR EROSION CONTROL (166)(168)
ITEM 164 SEEDING FOR EROSION CONTROL (162)(166)(168)
ITEM 168 VEGETATIVE WATERING
ITEM 216 PROOF ROLLING (210)
ITEM 260 LIME TREATMENT (ROAD-MIXED) (105)(132)(204)(210)(300)
(310)(520)
ITEM 305 SALVAGING, HAULING, AND STOCKPILING RECLAIMABLE ASPHALT
PAVEMENT
ITEM 360 CONCRETE PAVEMENT (300)(420)(421)(438)(440)(529)(585)
ITEM 400 EXCAVATION AND BACKFILL FOR STRUCTURES (132)(401)(420)
(421)
ITEM 401 FLOWABLE BACKFILL (421)
ITEM 402 TRENCH EXCAVATION PROTECTION
ITEM 403 TEMPORARY SPECIAL SHORING (423)
ITEM 416 DRILLED SHAFT FOUNDATIONS (420)(421)(440)(448)
ITEM 420 CONCRETE STRUCTURES (400)(404)(421)(426)(427)(438)(440)
(441)(448)
ITEM 422 REINFORCED CONCRETE SLAB (420)(421)(424)(426)(430)(440)
ITEM 423 RETAINING WALLS (110)(132)(400)(420)(421)(424)(440)(445)
(458)(556)
ITEM 425 PRECAST PRESTRESSED CONCRETE STRUCTURAL MEMBERS (420)
(421)(424)(426)(427)(434)(440)(442)
ITEM 428 CONCRETE SURFACE TREATMENT (427)

ITEM 432 RIPRAP (247)(420)(421)(427)(431)(440)
 ITEM 442 METAL FOR STRUCTURES (441)(445)(446)(447)(448)(449)
 ITEM 450 RAILING (420)(421)(424)(440)(441)(442)(445)(446)(448)
 (540)
 ITEM 454 BRIDGE EXPANSION JOINTS (429)(442)
 ITEM 459 GABIONS AND GABION MATTRESSES
 ITEM 460 CORRUGATED METAL PIPE (400)(445)(476)
 ITEM 462 CONCRETE BOX CULVERTS AND STORM DRAINS (400)(420)(421)
 (424)(440)(464)(476)
 ITEM 464 REINFORCED CONCRETE PIPE (400)(476)
 ITEM 465 MANHOLES AND INLETS (400)(420)(421)(440)(471)
 ITEM 466 HEADWALLS AND WINGWALLS (400)(420)(421)(430)(440)(464)
 ITEM 467 SAFETY END TREATMENT (400)(420)(421)(430)(432)(440)(445)
 (460)(464)
 ITEM 496 REMOVING STRUCTURES (430)
 ITEM 500 MOBILIZATION
 ITEM 502 BARRICADES, SIGNS, AND TRAFFIC HANDLING
 ITEM 508 CONSTRUCTING DETOURS
 ITEM 512 PORTABLE CONCRETE TRAFFIC BARRIER (420)(421)(424)(440)
 (442)
 ITEM 529 CONCRETE CURB, GUTTER, AND COMBINED CURB AND GUTTER (360)
 (420)(421)(440)
 ITEM 530 INTERSECTIONS, DRIVEWAYS, AND TURNOUTS (247)(260)(263)
 (275)(276)(292)(316)(330)(334)(360)(421)(440)(3267)(3268)
 ITEM 531 SIDEWALKS (104)(360)(420)(421)(440)(530)
 ITEM 536 CONCRETE MEDIANS AND DIRECTIONAL ISLANDS (420)(421)(427)
 (440)(529)
 ITEM 540 METAL BEAM GUARD FENCE (421)(441)(445)(529)(542)(544)
 ITEM 542 REMOVING METAL BEAM GUARD FENCE
 ITEM 544 GUARDRAIL END TREATMENTS
 ITEM 545 CRASH CUSHION ATTENUATORS (421)
 ITEM 560 MAILBOX ASSEMBLIES
 ITEM 618 CONDUIT (400)(445)(476)(622)
 ITEM 620 ELECTRICAL CONDUCTORS
 ITEM 624 GROUND BOXES (421)(440)
 ITEM 628 ELECTRICAL SERVICES (441)(445)(449)(618)(620)(627)(656)
 ITEM 644 SMALL ROADSIDE SIGN SUPPORTS AND ASSEMBLIES (421)(440)
 (441)(442)(445)(634)(636)(643)(656)
 ITEM 658 DELINEATOR AND OBJECT MARKER ASSEMBLIES (445)
 ITEM 662 WORK ZONE PAVEMENT MARKINGS (666)(668)(672)(677)
 ITEM 666 REFLECTORIZED PAVEMENT MARKINGS (316)(318)(662)(677)(678)
 ITEM 672 RAISED PAVEMENT MARKERS (677)(678)
 ITEM 677 ELIMINATING EXISTING PAVEMENT MARKINGS AND MARKERS (300)
 (302)(316)
 ITEM 678 PAVEMENT SURFACE PREPARATION FOR MARKINGS (677)
 ITEM 680 INSTALLATION OF HIGHWAY TRAFFIC SIGNALS (610)(625)(627)
 (634)(636)(656)
 ITEM 681 TEMPORARY TRAFFIC SIGNALS (628)(680)
 ITEM 682 VEHICLE AND PEDESTRIAN SIGNAL HEADS
 ITEM 684 TRAFFIC SIGNAL CABLES
 ITEM 686 TRAFFIC SIGNAL POLE ASSEMBLIES (STEEL) (416)(421)(441)
 (442)(445)(449)
 ITEM 687 PEDESTAL POLE ASSEMBLIES (445)(449)(656)(4003)
 ITEM 730 ROADSIDE MOWING

SPECIAL PROVISIONS: SPECIAL PROVISIONS WILL GOVERN AND TAKE
 ----- PRECEDENCE OVER THE SPECIFICATIONS ENUMERATED
 HEREON WHEREVER IN CONFLICT THEREWITH.

SPECIAL LABOR PROVISIONS FOR STATE PROJECTS (000---007)
 WAGE RATES

SPECIAL PROVISION "PARTNERING" (000--2329)
 SPECIAL PROVISION "SMALL BUSINESS ENTERPRISE IN STATE FUNDED
 CONSTRUCTION" (000--2301)
 SPECIAL PROVISION "IMPORTANT NOTICE TO CONTRACTORS" (000--2656)
 SPECIAL PROVISION "SCHEDULE OF LIQUIDATED DAMAGES" (000--2332)
 SPECIAL PROVISION "DEPARTMENT DIVISION MAILING AND PHYSICAL ADDRESS"
 (000---011)
 SPECIAL PROVISION "NONDISCRIMINATION" (000--2607)
 SPECIAL PROVISION TO ITEM 1 (001---015)
 SPECIAL PROVISION TO ITEM 2 (002---017)
 SPECIAL PROVISION TO ITEM 3 (003---033)
 SPECIAL PROVISION TO ITEM 4 (004---017)
 SPECIAL PROVISION TO ITEM 5 (005---004)
 SPECIAL PROVISIONS TO ITEM 6 (006---030)(006---047)
 SPECIAL PROVISIONS TO ITEM 7 (007---918)(007--1036)
 SPECIAL PROVISIONS TO ITEM 8 (008---069)(008---097)(008---125)
 (008---143)
 SPECIAL PROVISIONS TO ITEM 9 (009---012)(009---015)
 SPECIAL PROVISION TO ITEM 100 (100---002)
 SPECIAL PROVISION TO ITEM 132 (132---001)
 SPECIAL PROVISION TO ITEM 161 (161---006)
 SPECIAL PROVISION TO ITEM 164 (164---002)
 SPECIAL PROVISION TO ITEM 166 (166---001)
 SPECIAL PROVISION TO ITEM 247 (247---033)
 SPECIAL PROVISION TO ITEM 260 (260---003)
 SPECIAL PROVISION TO ITEM 275 (275---002)
 SPECIAL PROVISION TO ITEM 300 (300---039)
 SPECIAL PROVISION TO ITEM 302 (302---010)
 SPECIAL PROVISION TO ITEM 316 (316---016)
 SPECIAL PROVISION TO ITEM 318 (318---010)
 SPECIAL PROVISION TO ITEM 330 (330---001)
 SPECIAL PROVISION TO ITEM 360 (360---003)
 SPECIAL PROVISION TO ITEM 416 (416---001)
 SPECIAL PROVISION TO ITEM 420 (420---002)
 SPECIAL PROVISION TO ITEM 421 (421---035)
 SPECIAL PROVISION TO ITEM 424 (424---002)
 SPECIAL PROVISION TO ITEM 425 (425---001)
 SPECIAL PROVISION TO ITEM 428 (428---001)
 SPECIAL PROVISION TO ITEM 429 (429---008)
 SPECIAL PROVISION TO ITEM 431 (431---001)
 SPECIAL PROVISION TO ITEM 434 (434---003)
 SPECIAL PROVISION TO ITEM 438 (438---009)
 SPECIAL PROVISION TO ITEM 440 (440---006)
 SPECIAL PROVISION TO ITEM 441 (441---007)
 SPECIAL PROVISION TO ITEM 442 (442---016)

SPECIAL PROVISION TO ITEM 448 (448---002)
 SPECIAL PROVISION TO ITEM 450 (450---001)
 SPECIAL PROVISION TO ITEM 462 (462---015)
 SPECIAL PROVISION TO ITEM 464 (464---006)
 SPECIAL PROVISION TO ITEM 465 (465---001)
 SPECIAL PROVISION TO ITEM 476 (476---003)
 SPECIAL PROVISION TO ITEM 500 (500---011)
 SPECIAL PROVISION TO ITEM 502 (502---033)
 SPECIAL PROVISION TO ITEM 512 (512---002)
 SPECIAL PROVISION TO ITEM 530 (530---006)
 SPECIAL PROVISION TO ITEM 540 (540---031)
 SPECIAL PROVISION TO ITEM 560 (560---001)
 SPECIAL PROVISION TO ITEM 610 (610---015)
 SPECIAL PROVISION TO ITEM 620 (620---001)
 SPECIAL PROVISION TO ITEM 624 (624---014)
 SPECIAL PROVISION TO ITEM 628 (628---003)
 SPECIAL PROVISION TO ITEM 636 (636---014)
 SPECIAL PROVISION TO ITEM 643 (643---001)
 SPECIAL PROVISION TO ITEM 672 (672---034)
 SPECIAL PROVISION TO ITEM 681 (681---002)
 SPECIAL PROVISION TO ITEM 682 (682---003)
 SPECIAL PROVISION TO ITEM 687 (687---004)
 SPECIAL PROVISION TO SPECIAL SPECIFICATION ITEM 1122 (1122--001)

SPECIAL SPECIFICATIONS:

 ITEM 1012 TRANSPLANT PLANT MATERIAL
 ITEM 1122 TEMPORARY EROSION, SEDIMENTATION, AND ENVIRONMENTAL
 CONTROLS
 ITEM 3267 DENSE-GRADED HOT-MIX ASPHALT (SMALL QUANTITY) (300)
 (301)(320)(520)(585)
 ITEM 3268 DENSE-GRADED HOT-MIX ASPHALT (300)(301)(320)(520)(585)
 ITEM 4003 SCREW-IN TYPE ANCHOR FOUNDATIONS
 ITEM 4050 CATTLE GUARD
 ITEM 5848 STORMWATER TREATMENT UNIT
 ITEM 6007 REMOVING TRAFFIC SIGNALS
 ITEM 6167 INSTALL OR REPLACE VIVDS CAMERA ASSEMBLY AND VIVDS
 COMMUNICATION CABLE
 ITEM 8835 ACCESSIBLE PEDESTRIAN SIGNAL UNITS

GENERAL: THE ABOVE-LISTED SPECIFICATION ITEMS ARE THOSE UNDER WHICH
 ----- PAYMENT IS TO BE MADE. THESE, TOGETHER WITH SUCH OTHER
 PERTINENT ITEMS, IF ANY, AS MAY BE REFERRED TO IN THE ABOVE-
 LISTED SPECIFICATION ITEMS, AND INCLUDING THE SPECIAL
 PROVISIONS LISTED ABOVE, CONSTITUTE THE COMPLETE SPECIFI-
 CATIONS FOR THIS PROJECT.